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ABSTRACT

One of six introductory modules in a 22-module series designed to train vocational education curriculum specialists (VECS), this guide is intended for use by both instructor and student in a variety of education environments, including independent study, team teaching, seminars, and workshops, as well as in more conventional classroom settings. The guide has five major sections. Part I, Organization and Administration, contains an overview and rationale, educational goals and performance objectives, recommended learning materials, and suggested reference materials. Part II, Content and Study Activities, contains the content outline arranged by goals. Study activities for each goal and its corresponding objectives follow each section of the content outline. Content focus is on technological advances, growing public awareness of the needs of the disadvantaged, movement toward sexual equality, the environmental movement, manpower forecasting, current knowledge about the future of work and projected changes in the work force, and current concepts of providing students with job experience as a supplement to classroom instruction. Part III, Group and Classroom Activities, suggests classroom or group activities and discussions keyed to specific content in the outline and to specific materials in the list of references. Part IV, Student Self-Check, contains questions directly related to the goals and objectives of the module, which may be used as a pretest or posttest or as a periodic self-check for students in determining their own progress throughout the module. Part V, Appendix, contains suggested responses to the study activities from part II and responses to the student self-checks. (HD)

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VOCATIONAL EDUCATION CURRICULUM SPECIALIST

VECS

ED132379

Module 3:

Current Trends in Vocational Education

STUDY GUIDE

(TEACHING/LEARNING MODULE)

U.S. DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

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-Study Guide-

Module 3

CURRENT TRENDS IN VOCATIONAL EDUCATION

This document is one of a series of teaching/learning modules designed to train Vocational Education Curriculum Specialists. The titles of all individually available documents in this series appear below:

INTRODUCTORY MODULES

1. The Scope of Vocational Education
2. Roles of Vocational Educators in Curriculum Management
3. Current Trends in Vocational Education
4. Organization of Vocational Education
5. Legislative Mandates for Vocational Education
6. The Preparation of Vocational Educators

CORE MODULES

1. Important Differences Among Learners
2. Learning Processes and Outcomes
3. Applying Knowledge of Learning Processes and Outcomes to Instruction
4. Assessing Manpower Needs and Supply in Vocational Education
5. Laying the Groundwork for Vocational Education Curriculum Design
6. Selecting Instructional Strategies for Vocational Education
7. Derivation and Specification of Instructional Objectives
8. Development of Instructional Materials
9. Testing Instructional Objectives
10. Fiscal Management of Vocational Education Programs
11. Introducing and Maintaining Innovation
12. Managing Vocational Education Programs
13. Basic Concepts in Educational Evaluation
14. General Methods and Techniques of Educational Evaluation
15. Procedures for Conducting Evaluations of Vocational Education

SEMINARS AND FIELD EXPERIENCE MODULE

(Seminars in Authority Roles and the Curriculum Specialist in Vocational Education, and Leadership Styles and Functions of the Curriculum Specialist in Vocational Education; field work in Project Design and Administration, Operation of School Programs, Evaluation of School Programs, Educational Research and Development, and State, Regional, and Federal Program Supervision)

INSTALLATION GUIDE

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PREFACE

Who is a vocational education curriculum specialist? The answer to this question is not as simple as it might appear. A vocational education curriculum specialist is likely to work in many different capacities, including, but not limited to: instructor, department chairperson, dean of vocational-technical education, vocational supervisor, principal, state or local director of vocational education, and curriculum coordinator.

The specialist is, perhaps, more identifiable by his/her responsibilities, which include, but are not limited to:

- planning, organizing, actualizing, and controlling the work of an educational team performed to determine and achieve objectives.
- planning, organizing, and evaluating content and learning processes into sequential activities that facilitate the achievement of objectives.
- diagnosing present and projected training needs of business, industry, educational institutions, and the learner.
- knowing, comparing, and analyzing different theories of curriculum development, management, and evaluation and adapting them for use in vocational-technical education.

This teaching/learning module is part of a set of materials representing a comprehensive curriculum development project dealing with the training of vocational education curriculum specialists. The purpose of this two-year project was 1) to design, develop, and evaluate an advanced-level training program, with necessary instructional materials based on identified vocational education curriculum specialist competencies, and 2) to create an installation guide to assist instructors and administrators in the implementation process.

The curriculum presented here is, above all else, designed for flexible installation. These materials are not meant to be used only in the manner of an ordinary textbook. The materials can be used effectively by both instructor and student in a variety of educational environments, including independent study, team teaching, seminars, and workshops, as well as in more conventional classroom settings.

Dr. James A. Dunn
Principal Investigator and
presently Director,
Developmental Systems Group
American Institutes for Research

ACKNOWLEDGEMENTS

The Vocational Education Curriculum Specialist Project was a comprehensive development and evaluation effort involving the contribution of a large number of people: project staff, curriculum consultants, a national advisory panel, and a number of cooperating colleges and universities. This wide variety of valuable inputs makes it difficult to accurately credit ideas, techniques, suggestions, and contributions to their originators.

The members of the National Advisory Panel, listed below, were most helpful in their advice, suggestions, and criticisms.

Myron Blee	*Florida State Department of Education*
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Ralph C. Bohn	*San Jose State University*
Ken Edwards	*International Brotherhood of Electrical Workers*
Mary Ellis	*President, American Vocational Association*
George McCabe	*Program Director, Consortium of California State University and Colleges*
Curtis Henson	*Atlanta Independent School District, Georgia*
Ben Hirst	*Director, Consortium of the States, Atlanta, Georgia*
Joseph Julianelle	*U. S. Department of Labor*
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Rita Richey	*Wayne State University*
Bryl R. Shoemaker	*Ohio State Department of Education*
William Stevenson	*Oklahoma State Department of Education*

The project would not have been possible without the cooperation and commitment of the field test institutions listed below.

California State University, Long Beach
California Polytechnic State University, San Luis Obispo
Consortium of California State University and Colleges
- California State University, Sacramento
- California State University, San Diego
- California State University, San Francisco
- California State University, San Jose
- California State University, Los Angeles

Iowa State University
University of California Los Angeles
University of Northern Colorado

Overall responsibility for the direction and quality of the project rested with James A. Dunn, Principal Investigator. Project management, supervision, and coordination were under the direction of John E. Bowers, Project Director.

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Part I:

Organization and Administration

PART I
ORGANIZATION AND ADMINISTRATION

Guidelines

This study guide has five major sections. Each section contains useful information, suggestions, and/or activities that assist in the achievement of the competencies of a Vocational Education Curriculum Specialist. Each major section is briefly described below.

PART I: ORGANIZATION AND ADMINISTRATION

PART I contains an Overview and Rationale, Educational Goals and Performance Objectives, Recommended Learning Materials, and Suggested Reference Materials. This section will help the user answer the following questions:

- How is the module organized?
- What is the educational purpose of the module?
- What specifically should the user learn from this module?
- What are the specific competencies emphasized in this module?
- What learning materials are necessary?
- What related reference materials would be helpful?

PART II: CONTENT AND STUDY ACTIVITIES

Part II contains the content outline arranged by goals. The outline is a synthesis of information from many sources related to the major topics (goals and objectives) of the module. Study activities for each goal and its corresponding objectives follow each section of the content outline, allowing students to complete the exercises related to Goal 1 before going on to Goal 2.

PART III: GROUP AND CLASSROOM ACTIVITIES

The "Activities-Resources" column in the content outline contains references to classroom or group activities and discussion questions related to specific content in the outline. These activities and discussion questions

are located in PART III and are for optional use of either the instructor or the student. Both the classroom activities and discussion questions are accompanied by suggested responses for use as helpful examples only--they do not represent conclusive answers to the problems and issues addressed. Also contained in the "Activities-Resources" column are the reference numbers of the resources used to develop the content outline. These reference numbers correspond to the numbers of the Suggested Reference Materials in PART I.

PART IV: STUDENT SELF-CHECK

PART IV contains questions directly related to the goals and objectives of the module. The self-check may be used as a pre-test or as a post-test, or as a periodic self-check for students in determining their own progress throughout the module.

PART V: APPENDICES

Appendix A contains responses to the Study Activities from PART II, and Appendix B contains responses to the Student Self-Check. The responses provide immediate feedback to the user and allow the module to be used more effectively for individualized study. They have been included in the last part of the module as appendices to facilitate their removal should the user wish to use them at a later time rather than concurrently with the rest of the module.

Approximately 20 hours of out-of-class study will be necessary to complete this module.

Overview and Rationale

This module provides a brief view of America's world of work today and a glimpse of what the future may hold for members of the work force and for those preparing to enter the work force. The content outline and reading selections for this module describe how changes in the world of work affect vocational education and manpower planning.

Next, the module considers current vocational education concepts and practices which provide students with immediate ties to the world of work, through cooperative education, work experience, work-study programs, and simulation.

Finally, the module looks at one of the groups of people vocational education attempts to serve--the 20% of the population that is forced to live outside the mainstream of society because of severe economic and social deprivation. Providing an effective education for the disadvantaged is not the exclusive problem of vocational educators, but it is a problem that cannot be ignored. According to the National Advisory Council on Vocational Education, "One of the most glaring failures of the American education system is its inability to effectively prepare the disadvantaged for full participation in society." Vocational education, as a part of society, faces the responsibility for trying to meet the goal that every American, child or adult, be given an education relevant to his special needs.

As individual needs and societal conditions change, vocational educators have had to reinterpret the principles of vocational education for modern times and apply them in specific programs. To modify, improve, and install these programs, vocational curriculum specialists must be aware of the current issues and trends in their own field as well as in the world of work to which vocational education is so directly tied.

The basic principles of vocational education relate to the optimum utilization of human resources, the needs of the economy, and the social structure, in other words, to <u>people and the work they do</u>. These principles are clearly reflected in the most current legislative mandate for vocational education, the Vocational Education Amendments of 1968. The Declaration of Purpose of this document states:

> "It is the purpose of this title to authorize federal grants to states to assist them to maintain, extend, and improve existing programs of vocational education, to develop new programs of voca-

tional education, and to provide part-time employment for youths who need the earnings from such employment to continue their vocational training on a full-time basis, so that persons of all ages in all communities of the state--those in high school, those who have completed or discontinued their formal education and are preparing to enter the labor market but need to upgrade their skills or learn new ones, those with special educational handicaps, and those in post-secondary schools--will have ready access to vocational training or retraining which is of high quality, which is realistic in the light of actual or anticipated opportunities for gainful employment, and which is suited to their needs, interests, and ability to benefit from such training."

Goals and Objectives

Upon completion of this module, the student will be able to achieve the following goals and objectives:

GOAL 3.1: BE ABLE TO ANALYZE AND SUMMARIZE HOW CHANGES IN THE WORLD OF WORK AFFECT VOCATIONAL EDUCATION; EXPLAIN THE RELATIONSHIPS BETWEEN VOCATIONAL EDUCATION AND MANPOWER FORECASTING, AND THE DIFFICULTIES INVOLVED IN MAKING ACCURATE MANPOWER FORECASTS.

- Objective 3.11 State the most basic problem preventing vocational education from meeting the manpower needs of the nation.
- Objective 3.12 Describe how vocational education is generally affected during periods of recognized manpower shortage and during periods when the most acute manpower shortages have been met.
- Objective 3.13 Relate the value of manpower forecasting to the vocational education planning process.
- Objective 3.14 Identify four specific factors that make accurate manpower forecasting a difficult task.

GOAL 3.2: BE ABLE TO SYNTHESIZE CURRENT KNOWLEDGE ABOUT THE FUTURE OF WORK IN AMERICA AND PROJECTED CHANGES IN THE WORK FORCE.

- Objective 3.21 Specify the two major divisions of America's work force and determine which division has the greatest number of workers.
- Objective 3.22 Determine specific occupations for which there is and will be decreased demand due to technological advances.
- Objective 3.23 Determine specific occupations for which there is and will be increased demand.
- Objective 3.24 Identify the industry division in which employment has grown the fastest.
- Objective 3.25 Establish the trend in number of white-collar workers versus blue-collar workers;
- Objective 3.26 Determine the major occupational group in which women are employed.

Objective 3.27 Identify the age group for which unemployment is the highest.

Objective 3.28 Determine the difference in unemployment rates for blacks and whites.

Objective 3.29 Determine the educational level of the majority of American workers.

Objective 3.210 Determine the approximate number of women in the work force and the expected representation by 1980.

GOAL 3.3: BE ABLE TO ASSESS CURRENT CONCEPTS, VALUES, AND OBJECTIVES OF PROVIDING STUDENTS WITH JOB EXPERIENCE T SUPPLEMENT CLASSROOM INSTRUCTION, AND THE SPECIAL PROBLEMS OF VOCATIONAL EDUCATION IN MEETING THE NEEDS OF DISADVANTAGED STUDENTS.

Objective 3.31 Define the following terms: cooperative education, work experience, work-study, simulation.

Objective 3.32 List one benefit of cooperative education for each of the following: the school, the student, the employer, the community.

Objective 3.33 List two specific ways in which the 1968 Amendments to the Vocational Education Act of 1963 aided cooperative vocational education programs.

Objective 3.34 State the general conclusion of the Advisory Council on Vocational Education regarding the effectiveness of cooperative education programs.

Objective 3.35 List two specific difficulties, or disadvantages, of cooperative education programs.

Objective 3.36 Describe how simulation might enhance a cooperative vocational program.

Objective 3.37 List the four basic parts of a simulation.

Objective 3.38 Identify the percentage of "disadvantaged" in the American population.

Objective 3.39 Define the term "disadvantaged" according to the Vocational Education Amendments of 1968.

Recommended Materials

1. Evans, Rupert N. Foundations of Vocational Education. Columbus, Ohio: Charles E. Merrill Publishing Company, 1971.

2. U. S. Department of Labor, Bureau of Labor Statistics. Occupational Outlook Handbook. Washington, D.C.: U. S. Government Printing Office. (latest edition)

3. Manpower Report of the President. Washington, D.C.: U. S. Government Printing Office. (latest report)

4. Krebs, Alfred H. (Ed.) The Individual and His Education. The Second Yearbook of the American Vocational Association. Washington, D.C.: AVA, 1972.

5. Law, Gordon F. (Ed.) Contemporary Concepts in Vocational Education. The First Yearbook of the American Vocational Association. Washington, D.C.: AVA, 1971.

Suggested References

1. Advisory Council on Vocational Education. Vocational Education: The Bridge Between Man and His Work. Washington, D. C.: U. S. Government Printing Office, November, 1968.

2. American Vocational Association. American Vocational Journal: Reaching Out to Students with Special Needs. 47:8. Washington, D. C.: AVA, November 1972.

3. American Vocational Association, The Individual and His Education. Second Yearbook of the American Vocational Association. Washington, D. C.: American Vocational Association, 1972.

4. American Vocational Association. Vocational-Technical Terminology. Washington, D. C.: AVA, 1971.

5. Barlow, Melvin L. (Ed.) The Philosophy for Quality Vocational Education Programs. Fourth Yearbook of the American Vocational Association. Washington, D. C.: AVA, 1974.

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7. Jaffe, A. J. and Froomkin, Joseph. Technology and Jobs: Automation in Perspective. New York: Praeger, 1968.

8. Kazanas, H. C. The Philosophy and Foundations of Vocational Education. New York: MSS Information Corporation, 1973.

9. Knowles, Asa S. and Associates. Handbook of Cooperative Education. San Francisco: Jossey-Bass Inc., Publishers, 1972.

10. Krebs, Alfred H. (Ed.) The Individual and His Education. Second Yearbook of the American Vocational Association. Washington, D. C.: AVA, 1972.

11. Law, Gordon F. (Ed.) Contemporary Concepts in Vocational Education. First Yearbook of the American Vocational Association. Washington, D. C.: AVA, 1971.

12. Law, Gordon F. Cooperative Education: Handbook for Teacher-Coordinators. Chicago: American Technical Society, 1970.

13. Leighbody, Gerald B. Vocational Education in America's Schools: Major Issues of the 1970s. Chicago: American Technical Society, 1972.

14. McMurrin, Sterling M. (Ed.) Functional Education for Disadvantaged Youth. New York: Committee for Economic Development, 1971.

15. Manpower Report of the President Including Reports by the U. S. Department of Labor and the U. S. Department of Health, Education, and Welfare. Washington, D. C.: U. S. Government Printing Office, April 1974.

16. Mason, Ralph E. and Haines, Peter G. Cooperative Occupational Education and Work Experience in the Curriculum. Danville, Ill.: Interstate Printers and Publishers, Inc., 1965.

17. National Advisory Council on Vocational Education. Third Report. Washington, D. C.: U. S. Government Printing Office, July, 1970.

18. Smoker, David S. Vocational Education: Innovations Revolutionize Career Training. Washington, D. C.: National School Public Relations Association, 1971.

19. Somers, Gerald G. and Little, J. Kenneth. Vocational Education: Today and Tomorrow. Wisconsin: Center for Studies in Vocational and Technical Education, The University of Wisconsin, 1971.

20. Special Task Force to the Secretary of Health, Education, and Welfare. Work in America. Cambridge, Mass.: The MIT Press, 1972.

21. U. S. Department of Labor, Bureau of Labor Statistics. Occupational Outlook Handbook. Washington, D. C.: U. S. Government Printing Office, 1974.

22. Venn, Grant. Man, Education, and Manpower. Washington, D. C.: The American Association of School Administrators, 1970.

23. Venn, Grant. Man, Education, and Work: Postsecondary and Technical Education. Washington, D. C.: American Council on Education, 1964.

24. World Almanac and Book of Facts, 1975. New York, N.Y.: Newspaper Enterprise Association, Inc.

Part II:

Content and Study Activities

PART II
CONTENT AND STUDY ACTIVITIES

Goal 3.1

Content Outline	Activities-Resources

Goal 3.1: Be Able to Analyze and Summarize How Changes in the World of Work Affect Vocational Education; Explain the Relationship Between Vocational Education and Manpower Forecasting, and the Difficulties Involved in Making Accurate Manpower Forecasts.

A. Technological Advances: Advancing technology affects occupational stability, creating economic and social changes to which vocational education curriculum must respond. The last 25 years have been a period of unprecedented advances in technology.*

1. Energy Technology: A new source of energy was achieved when the means to release the energy of the atom were discovered. The possible uses for this new energy are wide open.
2. Health Technology: Advances in technology have increased the life span of Americans, and have brought social and political demands for universal health care. Several new health occupations have been created, and there is an increased need for workers in all health fields.*

* See Discussion Question A in Part III.

* See Discussion Question B in Part III.

3. Production Technology: Automation has increased the capacity of the economy to produce goods and food. Automation in agriculture and manufacturing has increased efficiency, at the same time eliminating the need for many workers in this area.
4. Information Technology: The computer has greatly decreased the time needed to record, classify, and store vast amounts of new knowledge. Business and scientific research efforts have expanded enormously, with only a small increase in manpower (13).
5. Communications Technology: With increased capabilities for long-range telecasting (between continents as well as with the moon), a vast array of new occupations in this area has emerged.*
6. Space Technology: Sophisticated technical accomplishments in this area have spread to other areas where they are used for other purposes. Useful applications of knowledge from space technology are just beginning (13).

B. Growing Public Awareness of the Needs of the Disadvantaged: After World War II, the social and economic inequality between the affluent majority and the disadvantaged minority became clearly evident. The disadvantaged became more militant and vocal in trying to gain relief from their situation, at the same time that

(13) Vocational Education in America's Schools: Major Issues of the 1970s. See Chap. 4. Also see (7) Technology and Jobs: Automation in Perspective.

* See Discussion Question C in Part III.

(13) Vocational Education in America's Schools: Major Issues of the 1970s. See Chap. 4. Also see (22) Man, Education and Manpower, Chap. 2. Also see A Look At Business in 1990, a summary of the White House Conference on the Industrial World Ahead. Washington, D.C. U.S. Gov. Printing Office, 1972.

the civil rights movement was gaining momentum. A War on Poverty was declared in the 1960s. Vocational education was seen as a means of fighting the war, because it presumably led to jobs, and jobs led to income (13).*

(13) Vocational Education in America's Schools: Major Issues Of the 1970s. See Chap. 8.

* See Discussion Question D in Part III.

C. Movement Toward Sexual Equality:* Women are struggling to realize their full potential as human beings who can fill many roles in the world of work. 1975 was International Women's Year; its special objective was to intensify the action to promote equality between men and women. The need for occupational education for women has not been met by the programs in the schools (13).*

* See Classroom Activity 1 in Part III. You may also wish to contact a member of the Women's Bureau to extend this discussion.

(13) As above, see Chap. 6.

* See Discussion Question E in Part III.

D. The Environmental Movement:* With recent energy shortages, society has become aware of the need to conserve energy and protect the finite supply of fuel. The shortage may well alter the rate of economic growth. It may also affect employment, stimulating it in some areas and restricting it in others. Vocational education will also be affected.

* See Classroom Activity 2 in Part III. Also see A Look at Business in 1990, a summary of the White House Conference on the Industrial World Ahead. U.S. Gov. Printing Office, 1972.

E. Study Activities

Based on your reading of the content outline and any additional references as suggested, complete the following activities.

1. Read Chapter 2 in Evans, Foundations of Vocational Education. Then answer the following questions. Use your own knowledge and experience in addition to references as you answer these questions.

   a. According to Evans, what is the earliest and most widely accepted objective of vocational education? How might this objective be expanded to meet the needs of today?
   b. Why has the problem of providing trained personnel for specific occupations become increasingly difficult?
   c. What is the newest device of society for providing occupational skills? How does its original purpose differ from its purpose today?
   d. Why do schools which operate placement offices for their students tend to have better vocational education programs than schools which do not have placement offices?
   e. What is the single, most basic problem preventing our society from meeting the manpower needs of the nation?
   f. What are the two major long-term trends in the labor force that reflect our changing manpower needs?
   g. How is vocational education generally affected during periods of recognized manpower shortage? During periods when the most acute manpower shortages have been met?
   h. How do perceived manpower needs differ from real manpower needs?
   i. Why does vocational education need a system of accurate, long-term manpower forecasting? How does this need vary?
   j. How do the following factors make accurate manpower forecasting an extremely difficult task: manpower demands, manpower supply, occupational shift, slippage?

(See Appendix A for possible answers.)

Goal 3.2

Content Outline	Activities-Resources
Goal 3.2: Be Able to Synthesize Current Knowledge About the Future of Work in America and Projected Changes in the Work Force.	
A. Increasing Difficulty of Manpower Forecasting: The Vocational Education Act of 1963 and the 1968 Amendments require that the education offered be "realistic in the light of actual or anticipated opportunities for actual employment." This requirement reinforces the need for vocational education planning based on the manpower needs of the country. Determining future manpower needs, however, is an extremely difficult task (6).*	(6) Foundations of Vocational Education, Chap. 2. Also see (13) Vocational Education in America's Schools, Chap.11. Also see (15) Manpower Report of the President, 1974, Chap. 2.
1. Limited Means of Data Gathering and Incomplete Knowledge of Manpower Variables: Most employers do not know what need for workers will be five years in advance. The economy and labor market of a modern technological nation is too vast and too variable to chart it in advance.	* See Discussion Question F in Part III.
2. Variety of Inputs Into the Labor Force: Vocational education is only one of the inputs into the labor market. Non-school sources also contribute to supply of workers in the market, and the kinds and numbers of these sources cannot be known in advance.	

3. Doubtful Validity of Earlier Techniques of Community Manpower Surveys: At present, community manpower surveys leave much to be desired in terms of accuracy in planning and forecasting manpower needs (5).

(5) The Philosophy for Quality Vocational Education Programs.

B. Career Mobility: More frequent career changes for the individual are becoming the pattern. An individual may hold seven different jobs during his working lifetime; this transiency, however, may include changing from one employer to another as well as changing from one occupation to another (6). *

(6) Foundations of Vocational Education, Chap. 2. Also see (22) Man, Education and Manpower, Chaps. 8, 9.

* See Discussion Question G in Part III.

C. Geographical Mobility: Nearly 20% of the American population has changed residence on an annual basis since World War II. Efforts to evaluate the effects of migration and to achieve effective manpower planning have been hampered by lack of information allowing comparison of population groups in terms of where they were born and grew up, where they obtained their education, where they first entered the labor force, and the number and types of intervening moves which brought them to their current place of residence (15).*

(15) Manpower Report of the President, 1974, p. 97.

* See Discussion Question H in Part III.

D. Decreasing Demand for Some Occupations: Technology has caused a decreasing demand for certain occupations (13).

1. Goods-Producing Occupations: Although more goods are produced for the consumer, less workers are required to produce them. With more sophisticated equipment, however, more sophisticated skills and knowledge will be necessary to work with it.
2. Farming: Although more food and clothing are produced for the consumer, fewer workers are required to produce them. Greater skills and knowledge will be needed, however, by those who work in this area.
3. Manual Skills Jobs: A result of modern technology is to decrease the number of manual skills jobs.

(13) Vocational Education in America's Schools, Chap.4. Also see (7) Technology and Jobs.

E. Increasing Demand for Some Occupations: While technology causes a decreasing demand for some occupations, it also causes an increasing demand for other occupations (13).*

1. Service Occupations: With machines taking over the production of goods, more people turn to the service sector of the labor market for employment. The service occupations have also grown rapidly because of population growth, increasing urbanization and its accompanying need for more city services, and rising income and living standards, causing a demand for improved

* See Discussion Question I in Part III.

services, such as health, education, and security.

2. Jobs Requiring Cognitive, Social, and Interpersonal Skills: As jobs requiring manual skills decrease, jobs requiring interpersonal skills increase. This increase corresponds with the increase in demand for the service occupations.

F. New Occupations Emerging:* Technological advances are sometimes directly responsible for causing the emergence of entirely new occupations. Examples of jobs that didn't exist 25 years ago include: environmental control specialists, air traffic controllers, computer programmers (13).

G. Rising Demands of Minorities and Women: With equal employment opportunity legislation and affirmative action policies, minorities and women have had some success in obtaining jobs that were not open to them previously. However, with the present economic crisis and job layoffs, this progress is receding. Minorities and women as "last hired" are often "first fired."

1. Minorities: Minority workers remain disproportionately unemployed or working at bad jobs. The unemployment rate for minorities is usually double that for whites. Minority workers who do have full-time jobs are working mainly at laboring jobs or jobs in the service trades

* See Classroom Activities 3 and 4 in Part III.

(13) Vocational Education in America's Schools, Chap.4, also see Education, Manpower and Economic Growth, New York: McGraw-Hill Book Company, 1964, Chap. 2.

which often pay less than a living wage (20).

In December of 1973, unemployment among the blacks was 12.8 percent, double that of the white rate of unemployment.

2. During December of 1973, the unemployment rate among teenagers continued to be the highest of any group at 18.3 percent.*

3. Women:* Although women compose approximately 40% of the work force, they do not receive pay equal to men for the same type of work. According to the President's Council of Economic Advisers, women generally make 20% less than men. Although most women hold white-collar jobs, these jobs are the less skilled and lower-paying jobs. In January, 1973, President Nixon, in the first economic report that ever considered the status of women, acknowledged that women had not made much progress in achieving job equality or equal pay since 1956. A recent issue of Harvard Business Review published the results of a survey of 20 major U.S. corporations that employ about 2 million people. The survey showed that women represented less than 1% of all the officials, managers, and professionals (24).

(20) Work in America: Report of a Special Task Force to the Secretary of Health, Education and Welfare.

* See Discussion Question J in Part III.

* See Classroom Activity 5 in Part III.

(24) World Almanac and Book of Facts, 1975. Also see Harvard Business Review, September/October, 1974.

H. Study Activities

Based on your reading of the content outline and any additional references as suggested, complete the following activities.

1. Read "Tomorrow's Jobs" in Occupational Outlook Handbook. Then complete the following multiple-choice questions.

   a. In what major industrial grouping is the majority of American workers?

      _____ a. goods-producing industries
      _____ b. service-producing industries
      _____ c. neither a nor b. American workers are fairly evenly distributed between the two major industrial groupings.

   b. Which of the following occupational areas is considered "goods-producing"?

      _____ a. banking, transportation, trade
      _____ b. education, health care, government
      _____ c. agriculture, manufacturing, mining

   c. In which industry division has employment grown faster than in any other division?

      _____ a. government
      _____ b. trade
      _____ c. finance, insurance, and real estate
      _____ d. manufacturing

   d. Which occupation would you expect to have the greatest demand in 1980?

      _____ a. farmer
      _____ b. carpenter
      _____ c. fireman
      _____ d. truck driver

e. In 1972, agriculture employed what percentage of all workers in the economy?

_____ a. 1%
_____ b. 4%
_____ c. 20%
_____ d. 50%

f. To which factor would you attribute slow increases in employment in the goods-producing industries?

_____ a. population growth
_____ b. increasing urbanization
_____ c. automation and other technological developments
_____ d. growth rate of goods producing industries

g. Which broad occupational group has the greatest number of workers?

_____ a. white-collar workers
_____ b. blue-collar workers

h. Which major occupational group has the greatest number of female workers?

_____ a. service workers
_____ b. professional and technical workers
_____ c. sales workers
_____ d. clerical workers

i. Which occupations are expected to have the fastest growth from now until 1985?

_____ a. clerical workers
_____ b. professional and technical workers
_____ c. sales workers
_____ d. farm workers

2. Read "Labor Force and Occupational Projections" in the Manpower Report of the President--April 1974.

a. For which age group is unemployment the highest?

_____ a. 18-24
_____ b. 25-34
_____ c. 35-50
_____ d. 50-65

b. The number of workers with eight years or less of schooling is expected to _____ by 1980.

_____ a. increase
_____ b. decrease
_____ c. remain relatively the same

c. What is the ratio of adult workers now who have completed at least four years of high school?

_____ a. 1 out of 2
_____ b. 2 out of 3
_____ c. 4 out of 5

d. By 1980, 1 out of every 4 workers is expected to be in which age group?

_____ a. 18-24
_____ b. 25-34
_____ c. 35-54
_____ d. 55-65

e. What is the approximate proportion of women presently in the work force?

_____ a. 30%
_____ b. 40%
_____ c. 50%

f. By 1980, what is the expected proportion of women in the work force?

_____ a. 40%
_____ b. 50%
_____ c. 60%

g. How does the rate of unemployment for blacks usually compare with that of whites?

_____ a. usually double the rate for whites
_____ b. usually four times greater than the rate for whites
_____ c. usually the same as the rate for whites

Goal 3.3

Content Outline	Activities-Resources

Goal 3.3: Be Able to Assess Current Concepts, Values, and Objectives of Providing Students with Job Experience to Supplement Classroom Instruction, and the Special Problems of Vocational Education in Meeting the Needs of Disadvantaged Students.

A. Current Concepts of Providing Students with Job Experience as a Supplement to Classroom Instruction: Although job experience as an adjunct to school instruction is not a recent innovation, it has taken on increased importance today. Relevance in education is the keynote of the day, and off-campus job experience is viewed as a means toward this relevance. Job experience provides a transition between the world of the school and the world of work.

1. Cooperative Education: "Cooperative" education requires a cooperative arrangement between schools and employers, allowing the student to obtain part-time vocational instruction in school and related on-the-job training through part-time employment. Common features of cooperative programs are: the systematic progression of skills and techniques through a definite pattern of learning experiences on the job; occupational orientation and job counseling, together with related

technical instruction in school; coordination of school and work activities through job visitations by school personnel; cooperative school and employer development of appropriate classroom work and job experiences; and school credit from combined employment training and related school work (12). (12) Cooperative Education: Handbook for Teacher-Coordinators. Also see (6) Foundations of Vocational Education, Chap. 12.

2. Work Experience Programs: Work experience programs are another form of providing job experience for students in addition to their school work. However, they are distinctly different from cooperative programs. Work experience programs have as their purpose "the supervised part-time employment of students in order to assist them in acquiring desirable work habits for and attitudes toward the world of work. The part-time job held by the students need not be related to their occupational objective." Work experience is not coordinated with school instruction, and the role of the school is usually limited to approval of the job (4). (4) Vocational-Technical Terminology.

3. Work-Study Programs: Work-study is yet another form of job experience for the student and distinctly different from cooperative education and work experience programs. The main purpose of work-study is to provide the students with financial support to enable them to stay in school. Work-study is a "program designed to provide financial assistance, through

part-time employment, to students who have been accepted for full-time enrollment in vocational education programs and require such aid to continue in vocational training. The part-time employment is based on the financial need of the student and is not necessarily related to his/her career objective." (3)

4. Simulation: Simulation as a means of gaining job experience within an instructional context is being used increasingly. It reduces the level of abstraction inherent in written materials, and falls somewhere between "talking about" and "doing" the job. Simulation is "a learning process which involves pupils as participants in role presentations and/or games imitating real-life situations or environments." (3)
   a. Advantages: Simulation provides a setting in the classroom in which complex skills can be learned in manageable steps. Since time can be compressed, feedback to the learner is more immediate. Mistakes are less damaging than if they were made on the real job. Simulation gives students the chance to practice skills under conditions similar to those that they may soon meet on the job, thus facilitating transfer of learning from the classroom to real life.

(3) "Using Simulation Training Materials to Individualize Instruction" in The Individual and His Education.

b. Disadvantages:* Some vocational educators consider simulation a less-than-ideal substitute for learning under real conditions. The need for transition to the real world still remains. Simulation may distort reality, and it may be less motivating to some than actual job experience (3).*

* See Classroom Activity 6 in Part III.

(3) "Using Simulation Training Materials to Individualize Instruction" in The Individual and His Education.

B. Meeting the Needs of the Disadvantaged: Despite efforts to address more attention to the vocational education needs of special groups, an undiminished stream of unemployable disadvantaged youth continues to pour into the labor market. Reasons for this include: limited financial resources, inexperience of vocational educators in working with those groups having different life styles and cultural backgrounds, difficulties in identifying the "disadvantaged" according to law, the high dropout rate among disadvantaged youth, and the complex and cyclical nature of poverty. Some research and evaluation of programs to train the disadvantaged for jobs is beginning to show that what prevents the disadvantaged from finding and maintaining employment is not lack of job training but rather the absence of a sound and complete general education (13).

* See Discussion Question K in Part III.

(13) Vocational Education in America's Schools, Chap. 8.

1. High School Dropouts: Dropouts provide a special challenge to vocational education. Generally, these students need some

saleable skills before they drop out of school. Students can drop out of school once they have passed the compulsory school age--usually 16, though the age minimum varies by state. Traditionally, vocational education programs to provide specific job-entry competencies begin when students reach age 16. Even if dropouts possess job skills, various factors restrict their entry into the job market before age 18: child labor laws, high insurance rates in hazardous occupations, laws concerning hazardous occupations (1)*

(1) Vocational Education: The Bridge Between Man and His Work.

* See Discussion Question L in Part III.

2. Attitude of Disadvantaged Toward Vocational Education:* Another difficulty of vocational education in meeting the needs of the disadvantaged is the attitude of the disadvantaged (and of the public in general). The disadvantaged see vocational education as second-class--good for someone else's children, leading only to the low-skilled and menial jobs (13).

* See Classroom Activities 7, 8, and 9 in Part III.

(13) Vocational Education in America's Schools, Chap. 8.

C. Study Activities

Based on your reading of the content outline and any additional references as suggested, complete the following activities.

1. Read Chapter 12 in Evans, Foundations of Vocational Education and Huffman in Contemporary Concepts in Vocational Education. Then complete the following multiple-choice questions.

   a. The primary goal of this type of program is to provide financial aid to the student so he/she can attend and remain in school. Which of the following terms best describes this program?

      _____ a. cooperative
      _____ b. work experience
      _____ c. work-study

   b. The primary goal of this type of program is to prepare students for gainful employment in the world of work. Which of the following terms best describes this program?

      _____ a. cooperative
      _____ b. work experience
      _____ c. work-study

   c. The primary goal of this type of program is to contribute to the students' general knowledge of the world of work. Which of the following terms best describes this program?

      _____ a. cooperative
      _____ b. work experience
      _____ c. work-study

d. At what grade level is the greatest percentage of students enrolled in secondary school cooperative programs?

_____ a. 10th grade
_____ b. 11th grade
_____ c. 12th grade

e. In which educational institutions are cooperative work education programs most prevalent?

_____ a. secondary schools and community colleges
_____ b. community colleges and four-year colleges
_____ c. secondary schools and four-year colleges

2. From your reading of Evans and Huffman, complete the following short-answer questions.

a. What are the benefits of cooperative education to the student? to the school? to the employer? to the community?

b. "Cooperative education is a three-dimensional complex." What does this statement mean to you?

c. How did the 1968 Amendments to the Vocational Education Act of 1963 facilitate cooperative vocational education?

d. What is the role of the teacher-coordinator in the cooperative education program?

e. What is the role of the advisory committee in the cooperative education program?

f. What is the conclusion of the Advisory Council on Vocational Education regarding the effectiveness of cooperative education programs?

g. What are four specific difficulties associated with cooperative education programs?

3. Read Hanson and Parker in The Individual and His Education. Then complete the following short-answer questions.

a. What are three ways in which simulation can be used in the vocational education setting?

b. How might simulation enhance a cooperative program?

c. Webster defines simulation as, "The assumption of the appearance of something without having its reality." From your reading and background knowledge, try to derive your own definition of simulation within a specific vocational education context.

4. Read the information sheets provided on the next pages and the Kemp article in "The Individual and His Education." Then complete the following multiple-choice questions.

a. Which population group has the lowest education attainment level?

_____a. rural
_____b. suburban
_____c. metropolitan

b. What percentage of the population is considered to be "disadvantaged?"

_____a. 10%
_____b. 20%
_____c. 30%
_____d. 40%

INFORMATION SHEET: DISADVANTAGED YOUTH AND THE FINDINGS OF THE AD HOC ADVISORY COUNCIL ON VOCATIONAL EDUCATION

Five years after the enactment of the Vocational Education Act of 1963, the Secretary of Health, Education, and Welfare appointed the ad hoc Advisory Council on Vocational Education to review the accomplishments under this law. Although the law singled out the disadvantaged as one of the groups to be served by the programs it financed, no funds were specifically tagged for the disadvantaged. After thorough review of the issue, the Advisory Council concluded that the objective of serving disadvantaged youth had hardly been touched.

The Council published its findings of the accomplishments of the 1963 Act in a general report entitled Vocational Education: The Bridge Between Man and His Work. The following materials are excerpts from that report. They deal specifically with the conclusions and recommendations of the Council regarding disadvantaged youth and people with special needs.

--from Advisory Council on Vocational Education. Vocational Education: The Bridge Between Man and His Work.

Enrollment of Persons With Special Needs

Table 18 indicates changes in enrollment of persons with special needs. Twenty States did not report any enrollment in this category for 1965, and 11 States did not report such enrollment in 1966. This was a new program, reported for the first time in 1965.

Vocational educators need to implement many new services in their new role of meeting the needs of persons with special needs.

Elements and patterns for success are to be found in the Vocational Rehabilitation Administration. Well-trained instructors and especially selected and sized groups are important, but there is the need to provide many other services, ancillary in nature, geared to the assessment of the potential of the individual. In addition, motivation, personal development and placement, and follow-up should round out their services for those with special needs.

There is the need for an awakening on the part of educators to their role and the magnitude of the task of adequately providing a satisfactory training service to those persons who may be disadvantaged.

One State has a successful occupational work-experience program for youth with I. Q.s in the 75-90 range. It has been found that programs providing school shop experience before the student is placed in a work-experience situation in the community have resulted in the greatest success. Trade and industrial training programs have proved to hold great potential for this type of development.

Another State has operated more than 200 classes for youth with special needs. To more adequately handle the problems involved, the State has conducted a one-week workshop for teachers and ancillary service workers in these programs each year. The expansion of guidance and counseling activity within the States should strengthen the programs designed to provide not only training to persons with special needs but also to meet effectively many additional auxiliary needs important to successful adjustment to the world of work and the community in which the individual must function as a contributing citizen.

TABLE 18.—*Enrollment of persons with special needs in vocational education programs, fiscal years 1965 and 1966*

State	Enrollment 1965	Enrollment 1966
Totals	26,638	49,002
Alabama		171
Alaska		1,111
Arizona	209	283
Arkansas	12	136
California	72	78
Colorado	779	1,320
Connecticut	5	10
Delaware		154
District of Columbia		915
Florida	66	621
Georgia		
Hawaii		
Idaho		
Illinois	7,449	8,720
Indiana		113
Iowa		9
Kansas	194	70
Kentucky		
Louisiana	37	808
Maine		
Maryland	2,225	2,480
Massachusetts	61	
Michigan	46	
Minnesota	40	661
Mississippi	395	516
Missouri	10	894

TABLE 18.—*Enrollment of persons with special needs in vocational education programs, fiscal years 1965 and 1966*—Continued

State	Enrollment 1965	Enrollment 1966
Montana		71
Nebraska		464
Nevada	16	177
New Hampshire		
New Jersey	23	1,372
New Mexico	70	83
New York		
North Carolina	100	698
North Dakota		46
Ohio	23	941
Oklahoma	2,000	18
Oregon		81
Pennsylvania	3,798	9,747
Rhode Island	64	124
South Carolina	166	162
South Dakota	13	
Tennessee	36	160
Texas	838	2,815
Utah	406	540
Vermont		
Virginia	112	809
Washington	112	108
West Virginia		117
Wisconsin	3,419	2,238
Wyoming		54
Puerto Rico	2,888	8,803

Expenditures for Persons With Special Needs

The enrollment in vocational education for persons with special needs, shown in table 54, almost doubled between 1965 and 1966, and expenditures increased greatly.

TABLE 54.—*Comparison of enrollments and expenditures for persons with special needs, fiscal years 1965 and 1966*

Year	Enrollment	Expenditures			
		Federal	State	Local	Total
1965	25,638	$345,978	$104,906	$354,440	$805,324
1966	49,002	1,852,504	1,156,558	2,039,550	5,048,614
	[1] (91.1)	[1] (435.0)	[1] (1,100.0)	[1] (476.0)	[1] (527.0)

[1] Percentage change from the previous year.

STUDENTS WITH SPECIAL NEEDS

Local administrators representing 26 vocational-technical schools and districts reported that their secondary programs included provisions for students with special needs. However, eight local administrators reported no programs for low ability students, and 31 indicated no program development for students with special needs.

The following reasons were cited for failure to develop programs for students with special needs:

1. Present VEA 1963 funds are not sufficient to both strengthen, maintain, and expand existing programs and to develop new programs at the local level.
2. Present State policies and priorities do not always coincide with and often do not consider inherent problems and needs at the local level. Specific examples of concerns expressed by the local administrators are:
   (a) The inability of poor school districts to allocate money from their general budget to meet matching fund requirements when State policies do not provide for Statewide matching.
   (b) The enormous cost of updating or adding programs to meet the needs of youth and adults in the large urban school system.
   (c) In some States rigid State plans are enforced which do not provide the flexibility needed by local districts.
   (d) The tendency of some State personnel to confine allocation of VEA 1963 funds to the traditional legislative requirements instead of meeting the intent of the 1963 legislation to promote the development of occupational programs for youth and adults preparing to enter gainful employment.

It was apparent from the descriptions by local school directors that several approaches exist to serving students with special needs.

Of the 26 high schools with programs for students with special needs, seven used the general skill center approach, with emphasis on occupational training and related courses geared to low-ability students.

Six institutions reported programs for dropouts, five favored the sheltered workshop technique, and one school conducted a six-week remedial summer session for students with special needs.

Post-high school and adult programs for students with special needs were less prevalent. Counseling, remedial reading programs, individualized programmed instruction, and other related methods of instruction were used to accommodate students with special needs.

Several local administrators stated that programs for persons with special needs were being conducted with funds from other sources, such as Title I of the Elementary and Secondary Education Act (Public Law 89-10), Community Action Programs (OEO), Neighborhood Youth Corps Program, and the Manpower Development and Training Act.

Evidence submitted by the local administrators generally supports the following statements:

1. Confusion regarding the term "students with special needs" does exist; the term requires further clarification.
2. Funding policies employed by the various Federal agencies seeking to reach youth and adults with special needs vary in matching fund requirements and are competitive.
3. Thirty-two percent of local districts indicate no program development or modifications for students with special needs.
4. Secondary students with special needs are receiving proportionately greater attention than post-secondary and adult students with similar needs. This can be attributed to two factors:
   (a) Many students with special needs normally do not continue into post-secondary programs.
   (b) MDTA and Adult Basic Education (Title II-B) funds are directed at the adult special needs group.
5. The minimal effort reported is consistent with the predominance of the further development of existing programs, facility construction, and equipment up-dating as against the development of new programs.

It must be emphasized again that vocational education has traditionally served some youth with special needs in the regular vocational education programs; local administrators have been sensitive to the needs of these youth for years. For example, data supplied to the council concerning enrollment for fiscal year 1967 indicated this fact. Mississippi reported an enrollment of 1,217 persons in classes for persons with special needs, but indicated also that 608 students enrolled in the regular secondary school program of vocational education (about one percent of the enrollment) were youth with special needs. Obviously the degree of the special need is a factor.

Programs for Youth With Special Needs

The Vocational Education Act of 1963, like other educational acts of about the same time, placed emphasis upon the need to combat poverty and unemployment. One of the purposes of the act was to expand vocational education programs for persons who have academic, socioeconomic, or other handicaps that prevent them from succeeding in the regular vocational education programs.

Several factors bear on this problem. One is the reluctance of many persons in vocational education to accommodate this type of student. For many years vocational education has suffered from its image as a program for the troublemaker, slow learner, nonmotivated, less-than-college-ability types. Therefore, it is natural that there will be a strong tendency to avoid programs which perpetuate or increase this negative image.

Another factor is the lead time required to identify the population to be served, to develop programs, and to implement them. Although many students with special needs have been accommodated in vocational education in the past, it has usually been on an individual basis with the regular programs. A separate program for these persons is a new development in vocational education.

The special needs classification is emphasized not only by the Vocational Education Act of 1963 but also by the Manpower Development and Training Act and the Economic Opportunity Act. Because these latter acts do not require matching funds and because the States and localities have been reluctant to finance new or special programs, many States and local districts have turned to these sources for funding projects in the special needs category.

Again, it should be noted that the reporting system does not clearly present what is taking place in this area. Efforts are being made in this direction, and programs are being developed to accommodate persons within the classification. However, the evidence would appear to support the criticism that this purpose has not received the emphasis intended by the Congress through Public Law 88-210.

Practical solutions including suggestions for establishing programs and services that fit into ongoing program activities are needed. The leadership role of the Office of Education and the division places strong demands upon the specialists to ferret-out exemplary programs, document the success factors, package the proposals to fit a variety of State, area, and local conditions, and make this information available to administrators.

Programs for persons with special needs are not being implemented because many earnest vocational administrators are not fully cognizant of what constitutes an optimum program of services and training. There will be continued delays in implementing these programs until some suggested models are made available.

Vocational Training of Minority Groups

The integration of public schools has been a major purpose of the civil rights movement and has become public policy in the United States. The thrust of the civil rights legislation of the past years has been directed toward school integration and equal employment opportunities. However,

soon it was found that integration and equal employment opportunities remain unattainable objectives if they are not implemented with definitive efforts to help the academically underprivileged--white and nonwhite alike--acquire the general education and the vocational skills necessary to profit from training in integrated schools. Education must provide special programs for youths with educational handicaps to overcome the results of many decades of lack of opportunities.

Presently, there are no data available to assess the progress that has been accomplished in integrating vocational schools and in preparing nonwhite persons for the skills needed to attain equal employment opportunities. Probably it can be assumed that integration of vocational schools parallels closely the overall patterns of integration in all public schools. Several university studies are now in process on the characteristics of graduates and on the trends of vocational programs that may yield meaningful information on the degree of integration and on the nature of vocational training of minority groups.

Historically, where occupations have been closed to minority groups, these groups have also been discouraged from pursuing training for occupations that leads to no jobs. Studies indicate that proportionally a high ratio of Negroes are enrolled in vocational schools in metropolitan areas that are, however, in many cases do facto segregated. The same studies also indicate that nonwhite persons are still often trained for low-skill occupations. However, as employment opportunities are made available in formerly closed occupations, vocational training is also opened for such occupations. Finally, it can be concluded from several studies that nonwhite persons greatly profit from vocational education.

INNOVATIONS AND NEW DIRECTIONS

The American educational system is engaged in a period of research and experimentation. The changing climate of our socioeconomic structure is constantly placing more demands on education and its effect on the development of human resources. The challenge of attaining balance between the Nation's public school system and the needs of the times establishes the need for a careful diagnosis of the efficiency of the system in meeting its goal of providing an equal educational opportunity for all persons. In this study, two questions were central: (1) What are we now doing in vocational education? and (2) In what direction shall we move from the present position?

In order to avoid long-term maintenance of traditionalism and obsolescence, there must be a systematic and continuous process for providing data necessary in making those decisions essential for planning and implementing contemporary and viable programs. It is, therefore, essential that any assessment of vocational education must also take into consideration those other facets of the curriculum which may enhance or detract from the vocational program.

The accelerating change of the American society through technological change and economic affluence has placed many new demands on education. The growing realization and acceptance of the fact that education rests as one of the essential cornerstones to continued social-technical-economic progress has created the demand not only for more, but for better, education at all levels. The demand is evident by the greater numbers of youth who are completing high school, the increasing percentage of high school students entering the next level of education, and the large numbers of persons now in the workforce who are returning to school for personal or economic self-betterment.

Accompanying the growth demand for education is a concurrent demand for study and evaluation of the type, quality and economic factors of education. The demand appears to be generated by the growing social

and economic inequality which separates those who can or will, and those who cannot or will not take advantage of the available educational opportunities. Education, at all levels, has been made available to more persons as is evidenced by the tremendous postwar investment in facilities and programs. The general response to the increased opportunities has resulted in a continued demand for expansion, with most States unable to maintain building programs which keep pace with the rapid rise in school enrollments. However, the demand for education has not come from the total population. This is confirmed by the large number of students who become school dropouts. While the percentage who remain in school increases, the actual number of students who drop out remains approximately the same each year.

In the not too distant past, the dropout caused no great problem. In fact, there was a general attitude which prevailed both in and outside education that if the student did not like what he was getting in school, he could quit and go to work. Work, therefore, became a form of education providing an alternative system to those who dropped out or who were not accommodated in the traditional college oriented formal educational system. The doors of this second system of education have been closing rapidly to the type of student who formerly used it as a second chance. It remains open only to those who already possess an entry skill. As the opportunities of a second chance for the school dropout decrease, the social-economic problems associated with lack of employability increase. This, in turn, has called for a re-evaluation of the total educational system. It has raised the question: Which has failed--the student or the school? As a result, there has been an active pursuit, through research and experimentation, of methods by which students can be retained in a meaningful learning environment. The methods under study have been concerned with both course content and teaching methodology. Attempts are also being made to prevent the student from dropping out. In most instances, these have taken the form of an earlier identification of the underachieving and non-motivated learner, a determination of reasons for lack of interest,

and then, through counseling and program development, a stimulation of the student to better accomplishment.

Not all students leave school because of incapacity or lack of interest. Financial limitations are often a cause for students to terminate their education. In recent years, much attention has been given to this problem. Work opportunities, scholarships and grants, and low-cost student loans have been made available to students with financial need. These efforts have been made by educational institutions, private foundations, industry, lay and professional associations, and State and Federal legislatures. While there is still much to be done, progress has been made in removing the economic barrier to education.

4. IT IS RECOMMENDED, That funds and permanent authority be provided to develop and operate new and expanded vocational educational programs and services specifically designed for persons who have academic, social, economic, or other handicaps.

One of the critical problems facing the Nation today is how to help the academically, socially, and economically disadvantaged. Such persons tend to concentrate in the inner city of the large metropolitan areas. However, this problem is not exclusive to the large cities, nor can it be divorced from the economically depressed rural areas. Contributing to the problem of the inner city are large numbers of migrants from rural regions who are ill-equipped to meet the demands of the metropolitan labor market.

State and local resources have not adequately provided for the occupational preparation of residents of the urban centers. Programs of high-quality vocational education in these cities would provide opportunities for occupational preparation for the largest, unserved segment of our population.

These programs, funded on a 90 Federal/10 State-level (in kind or cash) matching basis, should meet the occupational preparation needs of socially, culturally, and economically disadvantaged youth and adult residents of slums and ghettos.

While emergency measures to treat the problem are necessary, efforts are also needed to build permanent solutions to the problem within the existing educational and social agencies. Knowledge and skill within the existing public vocational education agencies, and other cooperating agencies, can provide for a combination of services concerned not only with the work skills of high school and out-of-school youth and adults, but also with the employability of such persons. Such services include counseling, prevocational experiences, motivation, mental, physical, and social rehabilitation, remedial education, work skills, technical knowledge, and placement and follow-up.

Priority of need and emphasis will consider such factors as the current availability of services, population density, conditions of housing, racial balance, income levels, labor market needs, and the availability of transportation to employment opportunities.

23. IT IS RECOMMENDED, That in order to meet current needs, authorization levels for administering and operating programs of vocational and technical education under the act be established as follows:

I. Grants to States and Grants Authorized by the Commissioner of Education--$500 million. (Students served--8 million.)
   A. Grants to States--($437,500,000) (50-50).
   B. Grants by Commissioner--($62,500,000) (100)

II. Work-Study Program--$350 million (90-10). (Students served--575,000.)

III. Exemplary and Innovative Programs: General and Disadvantaged Population--$200 million (100). (Students served--175,000.)

IV. Residential Vocational Schools (50)--$200 million (90-10). (Students served--25,000.)

V. Programs for the Socially, Economically, and Culturally Disadvantaged--$300 million (90-10). (Students served--175,000.)

VI. Vocational Homemaking--$15 million (50-50). (Students served--2 million.) Total authorization--$1,565 million. Total students served--10,950,000 including 2 million in home economics. (Supporting data follows.)

III. Exemplary and Innovative Programs: General and Disadvantaged Population--$200 million (100)

Disadvantaged Population

By 1970, approximately 45 percent of the increase in the Nation's labor force will be youth in the 14-24 age bracket. With the concentration of population in the larger cities and the migration of disadvantaged youth from rural to metropolitan centers, many youth and adults are finding initial employment and advancement in the labor force a critical problem. The unemployment rate of minority groups, school dropouts, and other problems of the disadvantaged have created major problems in both urban and rural communities. The low educational and economic level, employment practices, housing, and family relationships all contribute to the problems of the disadvantaged in our society.

Little research or factual information is available to support programs aimed at solving one of our most serious problems, the Nation's disadvantaged population. While efforts are underway in several Federal programs to correct the problem of the currently identified population, no long-range potential program has been undertaken to impact on the causes and prevention through the public school system.

The public school is the only institution in our society that touches the life of every learner. Innovative programs to serve as models for improving the total elementary and secondary program in preventing recurring problems of the disadvantaged offer hope for the future. Programs must be

developed to reach the school dropout and assist in his reorientation to his role as a contributing member of society.

Major emphasis would be placed on preventative programs to keep the disadvantaged student in school until he is prepared to enter the labor force at a level commensurate with his ability and aspiration.

The following are examples of projects which would be developed and supported:

- Occupational training consisting of a combination of a modified or upgraded academic curriculum and occupational programs that provides students a dual opportunity for achievement in acquiring basic education skills and preparation for employment. Basic education, remedial instruction, and the academic curriculum to be flexible in all subject matter and taught on the achievement level of the student. The occupational training phase to consist of classroom instruction combined with shop training and/or on-the-job training on a level adapted to the interests, aptitudes, and abilities of individual students.
- Training for a family of occupations in a single program. Teachers attempt to develop skills in one job in a cluster before introducing the student to training in a related occupation. Thus saleable skills can be developed early against the possible early withdrawal of the student.
- Special programs with a range of occupational choice designed for dropouts and potential dropouts. Emphasis placed on intensive guidance and counseling, half-day study, half-day work program; special study laboratories available for the students with programmed instructions, literature, and other materials dealing specifically with their areas of interest. Specialized staff available to prepare instructional material designed to meet the specific needs of the student.
- Sheltered workshops to provide vocational training for the physically and mentally handicapped. Occupational instruction provided on a full-time basis plus preparation of students for more satisfying personal and family living--stress is on development of appropriate work habits and attitudes and the development of elementary job skills which lead to employment.

- Programs of remedial education for upgrading students for entry into regular vocational high schools or preparation for some entry job if they leave school.

V. Programs for the Socially, Economically, and Culturally Disadvantaged-$300 Million (90-10)

While programs of vocational and technical education have grown rapidly since the passage of the 1963 act, critical problems and gaps still exist in programs meeting the occupational needs of the hard core disadvantaged.

- The unemployment rate among the 16- to 19-year-old age group is 11 percent (three times the overall rate) and represents one-third of all the unemployment in the country.
- The unemployment rate among Negroes and other minority group members is nearly twice the overall unemployment rate.
- More than 1 million students drop out of school each year.
- The unemployment rate for dropouts is 50 percent greater than for high school graduates.
- Of all students now in the fifth grade, approximately 80 percent will not complete college and earn a B.S. or B.A. degree.
- The number of teen-age and young adult workers (ages 14-24) is expected to increase by almost 700,000 a year, constituting about 45 percent of the increase in the labor force between now and 1970.

The Large City Problem. More than three out of five of the Nation's population now live in metropolitan areas thus creating problems of:

- Large numbers of untrained youth and adults concentrated in small areas.
- Limited facilities and personnel with which to provide for the occupational needs of the youth and adults for entrance into the work force.
- Lack of adequate funds--local, State, and Federal--to provide the essential facilities to implement and operate the needed occupational training.

The Rural Problem. The out-migration of the rural population creates serious problems due to:

- The educational attainment level is lower than for the total population.
- The low economic level and tax base adversely affect the number and kinds of school facilities and educational offerings.
- Sparse population multiplies the problems of providing comprehensive educational programs, due to the small number of students and transportation problems.
- Lack of rural business and industrial employment fosters out-migration especially into the large cities. A serious problem is caused by the inability to offer occupation training to this segment of the population for large city occupations.

Funding Rationale. An estimated 175,000 hard core, underprivileged youth could be reached through this program. Assuming 90-10 matching, the estimated Federal unit cost per enrollee would amount to $1,428 itemized as follows:

Average prevocational, occupational training, and supportive costs per enrollee	$1,224[1]
Administrative costs	30
Supervision costs	148
Program costs (transportation, work tools)	26
Total	$1,428

[1] Based on actual costs in programs now operated by State boards of education, local schools, and related agencies and organizations.

INFORMATION SHEET

THIRD REPORT

National Advisory Council on Vocational Education

Vocational Education Amendments of 1968 Public Law 90-576

July 10, 1970

NATIONAL ADVISORY COUNCIL ON VOCATIONAL EDUCATION
REGIONAL OFFICE BUILDING #3 • ROOM 5022 • 7TH AND D STREET, S.W. • WASHINGTON, D.C. 20202 • PHONE (202) 962-0454

Honorable Elliot Richardson
Secretary
Department of Health, Education
and Welfare
330 Independence Avenue, S.W.
Washington, D.C. 20201

Dear Mr. Secretary:

In this, our Third Report, we have devoted our attention to one of the most glaring failures of the American education system: its inability to effectively prepare the disadvantaged for full participation in society. The enclosed Report includes our recommendations for dealing with this problem, and offers suggestions on integrating school and work experience, providing needed guidance for dropouts and others who do not easily conform to the regular school system, and developing programs for the disadvantaged which do not separate them from the mainstream of American education.

We believe that our recommendations, if adopted, would provide Federal support for the goal that every American child be given an education relevant to his special needs. In addition, we feel that the enactment of these recommendations would go far in trying to eliminate some of the most long-standing inequities of an educational system which has been geared to the "average" student, to the neglect and detriment of significant minority groups.

Sincerely,

Hugh Calkins
Chairman

Hugh Calkins

Enclosure

The National Advisory Council on Vocational Education was created by the Congress through the Vocational Education Amendments of 1968. It is composed of 21 persons, appointed by the President from diverse backgrounds in labor, management and education. It is charged by law to advise the Commissioner of Education concerning the operation of vocational education programs, make recommendations concerning such programs, and make annual reports to the Secretary of Health, Education, and Welfare for transmittal to Congress.

THIRD REPORT

NATIONAL ADVISORY COUNCIL
ON VOCATIONAL EDUCATION

In its First Report, the Council urged that the nation overcome its preoccupation with the idea that college is desirable for everyone, and that it develop a new respect for vocational-technical education as an effective form of career preparation. In its Second Report, the Council recommended that the federal government make fundamental policy changes in its approach to funding, in the organization and role of the Office of Education, and in present and proposed manpower policies and legislation.

In this, the Third Report, the Council deals with what it considers the basic challenge to American education today: Can it equip for effective participation in the life of the country, the 20 percent of the population now excluded because of inadequate educational opportunity?

The United States has developed into a technological society with no place for the uneducated, unskilled individual. The present educational system works well for the majority, i. e. for the children of the educated who with their talents increase the complexity of society and broaden the gap that separates them from the uneducated.

But a clock is ticking. The human time bomb that is the disadvantaged, the minority, the poor is approaching the moment of fracture. Deeply frustrated, untrained, impatient youth have concluded from their observations of the Sixties that the only way to create change is through violence. Their impatience is the mechanism of explosion.

The primary reason this nation has not yet established a society in which there is equal opportunity to learn and work is that it has not yet tried. Early in the Sixties, the people of the United States resolved to place a man on the moon within the decade. They were successful. The objective was accomplished because the resources and the attention required were devoted to the task.

In the mid-Sixties, the nation embarked upon an effort to eliminate ignorance and poverty in the United States. A few years later, it was seen that this objective could not be achieved easily or quickly, and the country drew back. A distant war and a new concern about environment are now consuming the attention once directed to these goals.

What America needs most is a commitment to fulfill its most basic ideal. This nation was founded on a belief in the inherent worth of every individual. The fulfillment of individual potential is the country's historic mandate.

To achieve that mandate in the Seventies, the Council recommends that the nation take four basic steps:

1. Recognize that employment is an integral part of education.

Much attention has been given to the effect of education on employment. Not enough has been paid to the opposite proposition: that employment, as an integral part of education, is essential to the learning experience of many youths.

a. Every secondary school should be an employment agency.

For many years, universities and colleges have operated employment offices through which graduating students and prospective employers conduct negotiations about jobs. In a handful of comprehensive schools, and in many vocational schools, a similar employment service is conducted for graduating seniors. This practice must become universal. It must become a priority national objective that schools in disadvantaged neighborhoods establish employment offices at once and accept a responsibility for removing barriers to the employment of their graduates.

Many educators will oppose this conclusion. They will say that finding a job is the responsibility of the employment service, not of the school. The Council believes this attitude ignores the importance of developing an understanding, on the

part of the student, of the relationship between his academic work and life in the real world. Schools which provide vocational education without also providing a job do not have a complete program. Such schools should not have full vocational funding.

Students learn best when they want to learn. A school successfully placing its students in jobs which open up careers is more likely to have motivated students than a school which does not. A school in which getting a job is part of the curriculum is more likely to have students who understand why reading and mathematics make a difference than a school which regards employment as somebody else's business.

b. Part-time employment should be a part of the curriculum.

There are a few essentials in the curriculum. Communication skills, mathematics, and some ability in problem solving are widely recognized to be among them. Not so widely recognized are the habits and attitudes which add up to employability.

Many children learn these attitudes at home. A father who is regularly employed and displays a responsible attitude toward his job is likely to teach employability to his children without much help from the school. A child who is brought up in a family in which there is no employed adult, or in which observed employment is sporadic and casual, is not likely to learn at home

how to hold a job. For such a child, employability is as important a part of the school curriculum as reading.

A good way to teach employability where it is not an integral part of every day life, is through employment. Every school with students who are not learning desirable employment habits at home should, to the extent the labor market allows, make part-time employment a regular part of the curriculum. Where the labor market does not provide enough part-time jobs, the work-study program under the Vocational Education Act should be adequately funded and utilized as a substitute for work experience in private employment.

It will cost money to locate part-time work stations and to supervise, counsel and instruct the students who hold them. Few expenditures, however, will bring a bigger return in linking education with productivity, and in making schools effective in preparing young people for meaningful careers.

c. The further education of the dropout.

This Council recommends a basic change in the national attitude toward dropouts. Currently, they are considered failures. The President of the United States annually appoints a committee to keep them in school. Critics and citizens measure the performance of school systems by their ability to reduce the number

who drop out. Those who do drop out are considered disgraced, and are lost by the school systems, and rarely welcomed back.

Where our educational system fails these young people is not so much in its inability to halt their early departure from school, as in its failure to recapture them later. A school system should in fact, as well as in theory, keep jurisdiction over the young people within its borders until they are either graduated or have reached such an age that they may be properly regarded as adults.

Schools should invest as much in follow-up and counseling for those who drop out as for those who remain in school. School systems need to establish programs for the young people who have had their first employment experience and are ready for further education. The adult high schools and the cooperative programs which are being established in many cities are healthy developments which must be encouraged.

2. Give priority to programs for the disadvantaged without separating the disadvantaged from the mainstream of education.

In our Second Report the Council said:

> "Federal legislation now encourages the development of separate programs for the disadvantaged. Such programs say to the disadvantaged that they are second-class citizens who cannot make it in the mainstream. Such programs appear to shut the door to career advancement. What the disadvantaged want and need is access to vocational and technical programs for

career preparation in the mainstream. Counseling, tutoring and other support and assistance are essential, but separateness destroys dignity."

Present legislation and policies encourage separateness by the form of the subsidy. It is time that accountants stop making policy for vocational education. A system must be devised in which the necessary subsidies to vocational education programs do not require that the programs be carried out in a way which defeats many of their most basic purposes.

3. Encourage parents and students to participate in the development of vocational programs.

In its First Report, this Council called attention to the prevalent attitude that vocational education is something which is good, but only for someone else's children. Among minority groups there is a well-founded suspicion that counselors, especially majority-group counselors, are influenced by a conviction that minority youth are fit only for the more menial occupations. Because minorities are underrepresented in many occupations, they are also underrepresented on vocational facilities, whose majority-group image is forbidding to them.

In time, this attitude may be overcome, this suspicion proven unjustified, and this image replaced. In this decade, however, these are factors which no one planning vocational education can ignore. There are some vocational facilities which are underutilized because they were planned for, but not with, their clientele. Vocational

education will not succeed in attracting the clientele which can profit most from it, unless it involves that clientele in its planning and direction.

For many years vocational educators have used industrial advisory committees to assist in developing curriculum, locating cooperative job stations, and employing graduates. Now vocational educators must also create advisory committees of parents and students. Only by doing so will vocational programs be successful in appealing to many students who are not planning to go on to post-twelfth grade education, and whose career training must, therefore, be acquired in school.

4. Establish residential schools for those who need them most.

There is mounting evidence that America must make an investment in residential schools for some adolescents who cannot cope with their homes or their neighborhoods. A nation whose boarding schools are conducted only for the wealthy and for those under juvenile court sentence has misplaced its priorities. There are young people who will respond to remedial education and career preparation only if separated from home and neighborhood conditions which make it impossible for them to learn in a day-school setting. Every major metropolitan community and every poor rural area needs a residential school for such youngsters.

Congress has never made a clear decision on whether a national investment in residential schools for disadvantaged youth should

be made and, if so, under what auspices it should be conducted. The Job Corps was a courageous experiment in the Economic Opportunity Act of 1964. Some Job Corps centers, located near urban areas and serving young people sixteen and seventeen years old, have been notably successful. The Advisory Council recommends that the residential school provisions of the 1968 Vocational Amendments be funded. School authorities must be given, on an experimental basis, an opportunity to demonstrate that residential schools with career preparation geared to disadvantaged youth can prove to be a worthwhile investment.

By enacting the 1968 Vocational Amendments, Congress declared its intent that a better society, based upon educational opportunity, should be built. Intent, however, even when it is the law of the land, does not alone bring action. The disadvantaged of this country have made it clear that they are tired of intentions which are not backed by adequate funds or by a genuine national concern. Eighteen months have gone by since the passage of the Vocational Amendments, and progress has been slow. Strong Executive leadership designed to translate intent into concrete, workable programs is due. The disadvantaged will no longer accept promises.

Respectfully submitted,

Hugh Calkins

Hugh Calkins, Chairman

Michael Alarid	John W. Letson	Charles F. Nichols
Richard G. Allen	W. E. Lowry	George L. Ramey
Lowell A. Burkett	Jack Michie	Robert M. Worthington
Marvin Feldman	Luis M. Morton	

Members, National Advisory Council

c. According to the Vocational Education Amendments of 1968, which groups of people are considered as "disadvantaged"?

_____a. high school dropouts and minorities
_____b. youth from families with low income
_____c. correctional inmates and unwed mothers
_____d. any or all of the above. The 1968 Amendments require an assessment of individual strengths and weaknesses.

d. Which of the following statements best describes a major policy recommendation of the National Advisory Council on Vocational Education?

_____a. School districts should set up separate schools for the disadvantaged, which will be more relevant to the learning style and interests of such students and which will free them from competing with other students in regular classes.
_____b. Since that which is separate is inherently not equal, school districts should establish programs for the disadvantaged within the already existing framework of the educational system.
_____c. Programs for the disadvantaged should not be integrated in regular classes because of the enormous bookkeeping problems involved in prorating the costs of special services for each individual.

e. In which piece of legislation were funds allocated specifically for the disadvantaged?

_____a. Vocational Education Act of 1963
_____b. Vocational Education Amendments of 1968
_____c. neither a nor b

5. Complete the following short-answer questions.

   a. What are the three major reasons why only a small portion of the disadvantaged are being reached by vocational education?
   b. Why is work-study an important aspect of vocational education programs for the disadvantaged?
   c. How might cooperative education be particularly beneficial to a disadvantaged student?
   d. What is the role of the National Advisory Council on Vocational Education? How does it differ from that of the ad hoc Advisory Council on Vocational Education?
   e. What is a major advantage of establishing residential schools for the disadvantaged?
   f. Do any significant changes seem to have occurred in regard to meeting the needs of the disadvantaged from the enactment of the Vocational Education Act of 1963 to the present? If so, what are they? If not, why not?
   g. What seems to be the general attitude of minorities toward vocational education programs? How would you explain this attitude?

Now that you are almost finished with Module 3, take a minute to reflect upon the learning you have done. How competent do you feel in discussing and explaining current trends in vocational education? What trends interest you the most? Are there trends that you are aware of that were not mentioned in this module? What questions do you now have about trends in vocational education?

Wrapup Activity

NOTE: To meet the basic requirements of this module, select one of the following references and complete the corresponding activity. If you wish to gain additional credit beyond the basic requirements, you may choose a second reference and activity to complete. Consult with your instructor first if you wish additional credit.

1. Author: Terkel, Studs
   Title: Working: People Talk About What They Do All Day and How They Feel About What They Do
   Source: New York: Pantheon Books, 1974.

This book is the result of the three years that Studs Terkel spent talking to people in a wide variety of occupations to see what they actually did all day and to discover how they felt about their jobs and their lives. Terkel, world famous for his on-the-spot interviews and his ability to draw people out, reveals more about the reality of individuals' working lives than many people know about their friends, husbands, and wives; the pride, humiliation, boredom, excitement; whom they hate, whom they respect, and how they get through the day.

The book groups jobs in such a way as to show the common factors involved in seemingly different occupations. For example, one section links a hooker, a stewardess, and an executive secretary. Another section shows the incredible variety of jobs that are tied to the automobile, the car emerging as the core of the American economy. And another section dramatically illustrates the difference between generations--fathers and sons with the same occupation--as well as the effect that a job will have on men and women who do the same things their whole lives.

Activity

Select one of the occupational categories represented in Terkel's book, Working. Then interview three people who are presently working in that occupation. How do they feel about their jobs? What are their attitudes toward work? In a short report (4-5 pages) summarize the attitudes of these people. Then compare these attitudes with that of the individual in Working. Are the attitudes similar or do they differ? What conclusions can you draw from your interviews?

2. Author: O'Toole, James (Task Force Chairman)
   Title: Working in America: Report of a Special Task Force to the Secretary of Health, Education, and Welfare
   Source: Washington, D.C.: Department of Health, Education, and Welfare, 1972.

This report, the result of a year-long study prepared for the Department of Health, Education, and Welfare by the W.E. Upjohn Institute for Employment Research, presents facts about the current nature of work and the workplace, concluding that millions of Americans are dissatisfied with the quality of their working lives--with dull, repetitive jobs that stifle autonomy and individual initiative. It presents evidence of the basic human need for work that is satisfying--work that establishes individual identity and self-respect and that lends order to life.

The report provides a broad perspective on the interrelated social concerns of manpower, medical care, education and welfare. It points out that today's jobs create problems that can and do have serious effects on society, work-related problems often resulting in declining physical and mental health, greater family and community instability, less balanced sociopolitical

attitudes, and an increase in drug abuse, alcohol addiction, aggression, and delinquency.

Activity

Work in America describes a basic problem facing American workers today--dissatisfaction with their jobs. This dissatisfaction may well be the result of a dissatisfying education. Perhaps if education were more satisfying, then work would be more satisfying too.

According to the Task Force Report (p. 143), "If the goals of education were maintaining curiosity, maintaining and building self-confidence, inducing a love of learning, and developing competence, education would be directly relevant to the major needs expressed by workers."

From the list of Vocational Education Programs, select one of the areas of most interest to you. How would you redesign this program at the secondary level to make it more satisfying to the student? Consider the roles of the student and teacher, the physical facilities, the curriculum, and the special needs of the disadvantaged. Summarize your ideas in a short report (4-5 pages).

Vocational Education Programs

1. Agricultural Education
2. Distributive Education
3. Health Occupations
4. Home Economics
5. Office Occupations
6. Technical Education
7. Trades and Industry
8. Other

Part III:

Group and Classroom Activities

PART III

GROUP AND CLASSROOM ACTIVITIES

Classroom Activities

NOTE: The following activities are designed for use in the classroom to stimulate discussion on specific topics covered in this module. Some activities are designed for use following student self-study. Others are of a more general nature and do not require self-study. All activities are keyed to the content outline to indicate an appropriate point for participation. When appropriate, each activity is accompanied by suggestions or examples that might be considered in responding.

1. The women's movement and the need to provide equal employment and advancement opportunities require changes in employment practices. These changes affect vocational education instruction. Determine which of the following statements are true and must be considered in vocational education.

   a. "Occupations formerly male or female dominated will be filled by both sexes."

      There are very few jobs, if any, that are inherently masculine or feminine. The trend in recent years has been to discourage the attitude that some work is for men and other work is for women. Vocational education programs have typically been dominated by males in the industrial, technical, and agriculture areas and by females in the home economics, health, and office occupation areas.

b. "Race and sex cannot be factors when filling positions or considering advancements."

Competency, past performance and potential are more realistic criteria to consider in filling jobs and awarding promotions.

c. "Quota systems indicating that a certain percentage of jobs must be filled by minorities and women will soon be in effect in many occupations."

Quota systems have proven to be quite unsuccessful and in most instances have been eliminated and replaced by affirmative action programs.

d. "If present efforts for equal employment opportunity are successful, many occupations will find more minorities and mixes of men and women than now exist."

Rising expectations of women and minorities is likely to be a key factor in the struggle for job equality. Traditional occupational education programs have failed to encourage this "mixing."

2. Society has become aware of the need to conserve energy and protect the finite supply of fuel. This recognition is reflected both in social science instruction and in physical science instruction. In what ways would the following vocational programs be affected by problems of energy consumption: auto mechanics, commercial food preparation, and farm management?

Example Response for Auto Mechanics
- Tune-up to produce maximum fuel economy.
- Understanding factors that affect fuel economy such as: tire inflation, engine size, driving habits, speed, automatic vs. standard transmission, rear axle ratios, weight of car.
- Conserve energy in auto shop by avoiding unnecessary running of engines, waste of heated or cooled air through open doors.
- Retraining to service new engines to replace the internal combustion engine.

3. Identify occupations that in future years will probably be in increased demand. Provide the reason for the anticipated increased demand.

Example Response for Computer Operator
- Computer technology is advancing at a rapid rate, with each generation of new computers able to provide new services.
- New uses are being identified for existing computers.
- Miniaturization of circuitry and automation are decreasing costs, making computers available to more business and industry.

4. Discuss the social and technological changes that cause the demand for occupations to increase or decrease.

Example Responses
- The development of semi-automatic elevators, easily controlled by occupants, has significantly reduced the need for elevator operators.
- Professional and technical occupations will be among the fastest growing occupations from 1972-1985 as national efforts are made in socioeconomic progress, urban renewal, transportation, harnessing the ocean, improving the environment.

5. Discuss the following statements. In your opinion, what is the general public attitude about these statements? You may wish to refer to the following references for more information concerning these topics:

Manpower Report of the President - April 1974, pp. 119, 123.
Occupational Outlook Handbook, 1974-75, p. 18.
Vocational Education in America's Schools, p. 87.
Technology and Jobs, p. 98.
Man, Education and Manpower, p. 145.
Foundations of Vocational Education, pp. 127, 274.

a. "Women have made considerable progress in obtaining equal employment opportunity. Many hold executive and upper administrative positions, and they are welcome additions to professions formerly male dominated, such as engineers and medical doctors."

b. "While women have made some progress in obtaining equal employment opportunity, equality is still a long distance away. Based on percentage of employment, women hold few administrative and executive positions in business, industry, and public service. With equal length of service and education, women have average lower salaries than men."

c. "The increasing number of families in which both husband and wife are employed has contributed to the overall unemployment rate."

d. "The present trends in mixing sexes in all occupations is being overdone. Some occupations are better suited for one sex than the other. Women are better nurses; men are better firemen. Women are better elementary school teachers; men are better engineers. Women are better typists; men are better laborers in industry."

e. "Minority groups, such as blacks, have employment opportunity problems similar to those of women."

6. Suppose you are a vocational director in a school district with 20,000 students in grades 9-12. Due to a traditional school board and administration, the vocational education program has not changed significantly during the last 20 years. A new board and administration are now in authority, and they favor a strong vocational education program. They invite you to a board meeting to gain knowledge about changes that have occurred in vocational education. How would you respond to the following questions?

a. "I note that there are no programs of cooperative education with business and industry in our district. Is this because the programs have no value, or because of cost? What do you recommend, and why?"

b. "Are cooperative programs more expensive or cheaper than regular school programs? Please explain."

c. "Does simulation have a place in vocational education? What are some of its advantages and disadvantages? How does it affect the cost of instruction?"

You may wish to consider the following ideas in answering these questions:
- In the long run a cooperative education program decreases the cost of job training to the school or district by using available community resources and equipment. Purchase of expensive labs or equipment becomes unnecessary.
- Education and employment goals become more consistent and related.
- The community becomes more involved and interested in education.
- It may be possible to hire one teacher coordinator for all fields in order to hold initial costs down.

7. In recent years, vocational education has modified program planning procedures to include the special needs of individuals and groups. This is a change from a system whereby business and industry identified the need for workers with special skills, a program was designed to provide the special skills, and students were recruited for the program.

Consider the changes that must be made in these procedures if the special needs of minorities, inner-city youth, women, and the disadvantaged must be considered. Through discussion, develop a procedure for planning vocational programs that consider the needs of individuals and special groups while still meeting the needs of business and industry so that trained students can be placed.

Within your plan you may want to consider the following:
- assessment of needs
- selection of training programs and other learning experiences
- organization of programs and learning experiences
- feedback from community, students and educators,
- evaluation

8. As a curriculum specialist, you are asked to develop programs that will provide high school students with some marketable skills before they drop out of school. In your state, compulsory attendance ends at age 16, and many students drop out of school at the end of the 10th grade.

   Identify the problems and limitations you must face when planning programs for potential dropouts.

   Some of the problems may include:
   - identification of potential dropouts
   - lack of student commitment and direction
   - lack of student interest in continuing school
   - lack of placement services
   - lack of follow-up services
   - inability of student to perform due to lack of basic literacy skills
   - a shortage of adequate training stations
   - shortage of trained personnel, etc.

9. Suppose you are a school counselor speaking to a group of minority students on the advantages of participating in vocational programs. How would you respond to the following statements and questions from the audience?

   a. "Vocational education is a 'put down' designed to keep the good white collar jobs for whites."

b. "What's my chance of having a black or other minority person as a teacher?"

c. "Will I receive the same salary and opportunities for jobs and promotions as whites?"

d. "Do you give the same speech to white students?"

You may want to invite a counselor(s) to class to react to these questions.

Activities for Additional Credit

NOTE: These activities are designed for the student who wishes to obtain additional credit beyond the basic requirements of this module. You may choose to write a paper on one of these activities, or discuss the activity with the instructor, or you may select some other method to complete the activity.

1. Select an area of vocational education (such as office practices). This area may be your specialization or one with which you are familiar. Identify the manner in which the following social forces might affect the instructional program in the area you select.
   a. Equal employment opportunity for women and minorities.
   b. Conservation of energy and other natural resources.
   c. Reduction of pollution and waste.
   d. Freedom to select individual life styles.
   e. Need for finding self-worth in employment.

Example Response
Selected Vocational Education Area: Law Enforcement

a. Equal employment opportunity for women and minorities.
   - Classes will contain mixes of men and women within a variety of races.
   - Program entrance requirements must be based on performance requirements, with items biased by sex or race removed.
   - Instruction must include information on equal employment opportunity and fair hiring practices.

2. Study the changing demand for occupations, determining the following:

   a. Occupations increasing in demand.
   b. Occupations decreasing in demand.
   c. Future trends of occupations that employ very large numbers of people.
   d. Occupations in which employees are needed.
   e. Occupations in which significant surpluses of employees exist.

3. Build a community college program for an occupational area of your choice. It may be an area in which you are interested, or it may be your own vocational area. The program you build should consist of the following:

   a. Identification of courses by name and brief descriptions for each of the four semesters.
   b. Consider inclusion of a work-study program. Briefly describe the program and identify when and for how long the students would participate.
   c. Consider simulated instruction. Describe the specific use, or explain why simulation will not be used.

4. In your individual school, try to locate specific vocational education courses in which simulation methods are being used. Briefly describe these methods and their apparent effectiveness. What are are the strengths? The weaknesses?

5. Cite the advantages and disadvantages of establishing separate schools for the disadvantaged. Briefly describe each of these advantages and disadvantages. Which group--advantages or disadvantages--presents the strongest case as far as you are concerned? Why?

Discussion Questions

A. What technological changes have you personally seen in your lifetime?

What effects have these changes had on employment?

(Jaffe and Froomking suggest that growth in the fields of education, health, defense,and space efforts are more responsible for shifts in the composition of the labor force than is technological change. It is difficult to distinguish among conventional mechanization, improvements in production processes due to organizational changes, and the newer techniques of organization called "automation.") (7)

B. What impact does the increase in life span have on vocational education? General education?

(Take into consideration retirement trends, "job sharing," training and retraining for occupations, age levels of people in the work force.)

C. What are some of the occupations in the communications industry?

How do people prepare for careers in these occupations?

(The communications industry provides communications systems such as telephones, radio,and TV broadcasting. About half of all the employees in the broadcasting industry hold professional and technical jobs, such as staff announcers, newsmen, writers, or broadcast technicians; clerical and sales workers make up an additional one-fourth; managerial personnel, such as producers and directors, make up about one-sixth. Many of the remaining employees are craftsmen, such as electricians and carpenters.) (21)

D. How successful has vocational education been in serving the disadvantaged?

[Success has been very limited. See (17).]

What are some of the advantages and disadvantages of affirmative action programs?

(The director of affirmative action programs on campus could provide this information.)

E. In what ways can vocational education expand opportunities for women?

(Encourage women to enter nontraditional fields, improve job placement and job development, improve advancement opportunities within the administrative structure of vocational education, etc.)

F. In what ways can and do vocational educators participate in manpower forecasting? What resources are available to assist educators in this process?

(Vocational educators have typically been assigned the responsibility of job placement and follow-up of students placed on the job. This task demands an awareness of local and national employment needs. Reliable resources for obtaining such information include: The Manpower Reports of the President, Occupational Outlook Handbook, Manpower Magazine, Occupational Outlook Quarterly; numerous career education books have been published in the last four years; the Department of Labor sends out a newsletter periodically; local employment services have information; communication with local businessmen is valuable, etc.)

G. Consider the following questions: Do we really have freedom of career choice in this country? Is there too much freedom of career choice contributing to surplus labor in some fields? Why are there more unemployed people in the United States than in any other industrialized country?

H. How many times have you moved in the last 10 or 15 years? What problems did you or your family experience as a result of the move? What benefits did you accrue by moving?

I. The debate between those who tend to ignore the effects of technological change and those who predict that automation will cause mass unemployment and revolution has a long history going back as far as Greco-Roman times. It might be interesting to hold a classroom debate on this topic. For additional information see reference (7).

J. Do you feel that job training will improve the situation of the disadvantaged and unemployed?

(There are indications that many of the disadvantaged and unemployed are in greater need of general education than job training.) (13)

K. Describe any experience you have had with simulation. How could it have been improved? What simulations might be developed for a course like this?

L. Could nontraditional approaches to vocational education help solve some of the problems of the disadvantaged?

(Consider such things as competency-based instruction, open entry/ open exit, more cooperative vocational education programs.)

Part IV:

Student Self-Check

PART IV
STUDENT SELF-CHECK

GOAL 3.1

1. What is the most basic problem preventing vocational education from meeting the manpower needs of America? In a few sentences, state this problem and briefly describe it. (3.11)

2. How is vocational education generally affected during periods of recognized manpower shortage and during periods when the most acute manpower shortages have been met? In a few sentences, briefly describe the effect on vocational education under each of these circumstances. (3.12)

3. Which of the following statements best describes the value of manpower forecasting in the vocational education planning process? (3.13)

   _____a. "Because we do not yet know how to forecast beyond three or four years with anything remotely resembling the 10% margin of error that is regarded as just tolerable in general economic forecasting, manpower forecasting is of little value to vocational education planners."

   _____b. "For vocational education to serve the manpower needs of society effectively, a system of long-term manpower forecasting is needed; although present forecasting systems are highly inaccurate, new approaches to forecasting are promising."

   _____c. "Long-term manpower forecasting with any degree of accuracy is impossible; however, because short-term forecasting has been highly reliable, it is of great value to vocational education planners."

4. Adequate manpower forecasting requires knowledge of the world of work in four specific areas. Errors or lack of information in any of these areas contributes to the difficulty of making accurate manpower forecasts. With which area are we concerned if we do not know the number of graduates of an occupational education program who do not enter the occupation for which they were prepared? (3.14)

_____a. manpower demands
_____b. manpower supply
_____c. occupational shifts
_____d. slippage

5. Adequate manpower forecasting requires knowledge of the world of work in four specific areas. Errors or lack of information in any of these areas contributes to the difficulty of making accurate manpower forecasts. With which area are we concerned if an error occurs in estimating the number of job openings resulting from retirements and death? (3.14)

_____a. manpower demands
_____b. manpower supply
_____c. occupational shifts
_____d. slippage

GOAL 3.2

6. Which of the following sets of terms describes the two major industrial divisions of America's work force? (3.21)

_____a. government/manufacturing
_____b. trade/agriculture
_____c. service/production
_____d. professional/nonprofessional

7. In what major industrial grouping is the majority of American workers? (3.21)

_____a. agriculture
_____b. service
_____c. nonprofessional
_____d. manufacturing

8. Which occupation would you expect to have the least demand in 1980? (3.22)

_____a. farmer
_____b. policeman
_____c. secretary
_____d. nurse

9. Which occupation would you expect to have the greatest demand in 1980? (3.23)

_____a. miner
_____b. elevator operator
_____c. policeman
_____d. fork lift operator

10. In which industry division has employment grown the fastest? (3.24)

_____a. trade
_____b. finance, insurance, and real estate
_____c. manufacturing
_____d. government

11. Which broad occupational group has the greatest number of workers? (3.25)

_____a. blue-collar workers
_____b. white-collar workers

12. Which occupational group has the greatest number of female workers? (3.26)

_____a. clerical workers
_____b. managers and administrators
_____c. sales workers
_____d. operatives

13. For which age group is unemployment the highest? (3.27)

_____a. 16-24
_____b. 25-34
_____c. 35-50
_____d. 50-65

14. If the unemployment rate for whites is 10%, what will most likely be the unemployment rate for blacks? (3.28)

_____a. 10%
_____b. 15%
_____c. 20%
_____d. 30%

15. What is the educational level of the majority of American workers? (3.29)

_____a. elementary school graduate
_____b. high school graduate
_____c. college graduate

16. What percentage of the work force do women presently comprise? (3.210)

_____a. 25%
_____b. 35%
_____c. 40%
_____d. 55%

17. What is the expected representation of women in the work force by 1980? (3.210)

_____a. 30%
_____b. 40%
_____c. 45%
_____d. 60%

GOAL 3.3

18. Which of the following programs covers a variety of situations where work or work orientation is used to motivate students and to show them applications in the real world of what is learned in school? (3.31)

    _____a. cooperative education
    _____b. work experience
    _____c. work-study
    _____d. simulation

19. Which of the following programs is best described as supervised on-the-job training with related classroom instruction? (3.31)

    _____a. cooperative education
    _____b. work experience
    _____c. work-study
    _____d. simulation

20. What is one benefit of cooperative education for each of the following: the school, the student, the employer, the community? For each, describe the benefit in one sentence. (3.32)

21. What are two specific ways in which the 1968 Amendments to the Vocational Education Act of 1963 aided cooperative vocational education programs? (3.33)

22. What was the general conclusion of the Advisory Council on Vocational Education regarding the effectiveness of cooperative education programs? (3.34)

23. What are two specific difficulties, or disadvantages, of cooperative education programs? (3.35)

24. How might simulation enhance a cooperative program? (3.36)

25. What percentage of the American population is "disadvantaged"? (3.38)

_____a. 5%
_____b. 15%
_____c. 20%
_____d. 25%

26. Which of the following statements best describes the term "disadvantaged" according to the Vocational Education Amendments of 1968? (3.39)

_____a. The 1968 Amendments define "disadvantaged" as those who are undereducated and underemployed.
_____b. The 1968 Amendments require that the term "disadvantaged" be applied on an individual basis, after an assessment of individual strengths and weaknesses.
_____c. The 1968 Amendments define "disadvantaged" as those who do not speak English as a primary language in the home, high school dropouts, and ethnic minorities.

27. Which piece of vocational education legislation allocated funds specifically for the disadvantaged? (3.39)

_____a. the Smith-Hughes Act of 1917
_____b. the Vocational Education Act of 1963
_____c. the Vocational Education Amendments of 1968

28. What are three basic reasons why only a small portion of the disadvantaged are being reached by vocational education? (3.39)

29. Which of the following statements is not a major policy recommendation of the National Advisory Council on Vocational Education? (3.39)

_____a. "Residential schools should be established for those who need them most."

_____b. "Priority should be given to the development of separate vocational and technical programs for the disadvantaged."

_____c. "The nation must recognize that employment is an integral part of education, and every secondary school must also act as an employment agency."

_____d. "Parents and students should be encouraged to participate in the development of vocational programs."

30. Which of the following statements best describes the general attitude of minorities toward vocational education programs? (3.39)

_____a. Vocational education programs are designed to segregate minorities and prevent them from obtaining higher education.

_____b. Any educational program which helps minorities compete more effectively for jobs is welcomed with open arms.

_____c. Vocational education programs are good, but only for someone else's children.

Part V:

Appendices

PART V

APPENDICES

Appendix A:

Possible Study Activity Responses

GOAL 3.1

1. a. To provide a mechanism for meeting the manpower needs of the local community. Today it is equally important to meet the needs of the nation and society as a whole and at the same time enhance human resource development.

   b. It is difficult to predict supply and demand. Employers cannot accurately predict their needs. The attitudes of society often make some occupations more appealing than others. People have a wide range of occupations from which to choose.

   c. Schools have become the nation's vehicle for providing training and general education to develop individual potential. The original purpose of the schools in this country was entirely vocational, training persons for religious, medical, and government professions.

   d. Placement is a vital part of the vocational education mission. Programs which plan for and operate placement services are more comprehensive and demonstrate superior organization and effort. Placement offices also serve as feedback for adjustment in content and methods of vocational training programs to meet local labor market needs. Placement assures more community participation in the total vocational education program.

   e. Attitudes of the public toward certain occupations and the general feeling that the college degree is the best ticket to occupational success.

   f. More mechanization is decreasing the need for unskilled labor; and growth in service industries is exceeding growth in goods producing industries.

   g. Generally the public accepts and supports vocational education programs during times of worker shortages. When acute shortages have been met, vocational education is often viewed by many as a frill and inferior form of education. During high unemployment vocational education is viewed more favorably by the public.

h. The greatest factor influencing the need for manpower is the consumer demand for particular services or goods. It is difficult to predict the duration of demand for any particular goods or service. Demand can change considerably in a four year period; consequently there is a time lag between the time that people train for an occupation and enter that occupation. People most often respond to great "shortages" or great "surplus" as advertised by the media and these short term trends are not necessarily reliable indicators of national manpower needs.

i. The most obvious need for manpower forecasting is to meet employment needs and individual needs. People who are trained for an occupation and are not able to find work in that occupation will experience varying degrees of dissatisfaction. Time and money may have been spent better elsewhere. Shortage of manpower in other areas may be equally as detrimental to society or the local community. Forecasting must also take into consideration the number and kinds of institutions involved in training for specific occupations.

j. manpower demands - these are dependent upon the consumer demand for a particular product or good. Demand is not easily predicted.

manpower supply - also dependent upon consumer demand which is relatively unpredictable; dependent also on number of people entering a particular occupation which is often dependent upon wage level, status, working conditions.

occupational shifts - people tend to be upwardly mobile in occupations that allow for this. Occupational shifts may be viewed as having many implications for adult education.

slippage - it has been estimated that 50% of the people trained for a specific occupation do not enter that occupation. It is difficult to know how many people will choose to enter the professions for which they are being trained, further complicating accuracy in manpower forecasting.

GOAL 3.2

1. a. b
   b. c
   c. a
   d. c
   e. d
   f. d
   g. a
   h. d
   i. b

2. a. a
   b. b
   c. b
   d. b
   e. b
   f. a
   g. a

GOAL 3.3

1. a. c
   b. a
   c. b
   d. c
   e. c

2. a. <u>student</u> - preparation for gainful employment
   - develop desirable attitudes toward work
   - develop new interest in school subjects
   - provide job contacts
   - provide a source of income

   <u>school</u> - lower capital investment in space and equipment
   - can improve community relations
   - adaptability to labor market changes
   - holds student interest
   - alternative approach to education

   <u>employer</u> - better source of workers
   - opportunity to train own employees
   - participation and contribution to community
   - develop or improve image

   <u>community</u> - more stable work force
   - more satisfied citizens
   - less outlay of tax money for school equipment
   - acquaints students and schools with community needs and functions

   b. Cooperative education is a job program, a school program, and a vocational learning style.

   c. - authorized reimbursement for added costs of CWE to employers
   - provided for transportation and teacher coordinators
   - provided funds for disadvantaged and handicapped
   - provided funds for curriculum development

   d. - advises students
   - identifies and secures adequate training stations
   - teaches job related classes in school
   - serves as a regular faculty member of the school

   e. - provides advice on manpower needs of the community
   - helps instructional programs stay in line with student and community needs
   - assists the entire vocational education program or one occupational area of that program
   - assists in locating training stations
   - assists in placement functions

f. Cooperative education programs had the best record of all vocational education programs in terms of the proportion of students placed in the occupation for which they were trained. There were higher rates of return on investment in cooperative programs than in other types of vocational education.

g. - not readily adaptable to some communities with a narrow range of training stations, declining populations, or with occupations having little future
- economic recessions cause layoffs of students which in turn require schools to find more training stations
- shortage of qualified teacher coordinators
- opposition of some teachers, employees, parents, school administrators
- restrictions of minimum wage laws, youth employment and safety regulations
- travel time and expenses
- reluctance of teacher to put in extra hours
- shortage of good training stations and high costs to employers

3. a. - to present information
- to elicit responses or provide practice
- to assess performance

b. - can be a "capstone" to formal instruction by providing "hands on" experiences or skill development opportunities
- can be used to supplement an instructional program
- allows for individualized instruction and learning
- provides exploration experiences

c. Example: A laboratory or "game" experience that closely resembles real job or work task and enables a learner to experience what this real situation would be like.

4. a. a
b. b
c. d
d. b
e. b

5. a. - inadequate funds
- lack of knowledge about students' culture, lifestyles, and experience
- difficulty in identifying disadvantaged

b. - many students need financial aid
- students have the opportunity to establish positive relationships with an employer
- provides practice in assuming responsibility
- provides an alternative approach to education

c. - student is more likely to see relationship between work and career
- student can develop employment contacts
- may provide motivation to stay in school
- provides close supervision and assistance for students who are in need of such discipline

d. The national council is a permanent committee which advises the Commissioner of Education concerning the operation of vocational education programs, makes recommendations concerning such programs, and makes annual reports on vocational education to the Secretary of Health, Education and Welfare. The ad hoc committee was a temporary committee formed to evaluate the 1963 Vocational Education Act.

e. To provide a more adequate learning and living environment.

f. More disadvantaged students are enrolled in vocational education programs due to the provisions of funds in the 1968 Amendments. Progress, however, is slow and there don't seem to be conclusive data on the success or failure of these programs. Poverty is a difficult symptom to treat and job training does not provide the panacea it was once thought to. Poverty cannot be solved by vocational education alone.

g. In the recent past, many disadvantaged people viewed vocational education with some suspicion. Part of the "American Dream" has been to "get a good education in college," then find success in one of the high paying professions. Minority people have shared this dream but have had limited access and tend to feel that settling for vocational education rather than college education is another attempt of the white majority to hold them back, to force them into menial tasks and low paying jobs. People are beginning to recognize that a college degree does not mean good employment and sometimes it doesn't mean employment at all. A recent survey conducted by the Phi Delta Kappan indicates some change in the attitude of people toward vocational education as more emphasis is placed on learning the basics and preparing people for careers.

Appendix B:
Possible Self-Check Responses

GOAL 3.1

1. What is the most basic problem preventing vocational education from meeting the manpower needs of America? In a few sentences, state this problem and briefly describe it. (3.11)

   The most basic problem preventing vocational education from meeting the manpower needs of America is public attitude toward certain occupations, namely, those occupations for which vocational education trains. The public sees vocational education as good, but for someone else's child, placing the highest value on college prep training in high school and training for the professions in college.

2. How is vocational education generally affected during periods of recognized manpower shortage and during periods when the most acute manpower shortages have been met? In a few sentences, briefly describe the effect on vocational education under each of these circumstances. (3.12)

   During periods of recognized manpower shortage, federal, state, and local expenditures for vocational education in the public schools increase sharply. The nation's press and the educational literature laud vocational education as vital to the nation's welfare.

   However, during periods when the most acute manpower shortages have been met, vocational education is ignored or sharply attacked as a waste of the taxpayer's money.

3. Which of the following statements best describes the value of manpower forecasting in the vocational education planning process? (3.13)

_____a. "Because we do not yet know how to forecast beyond three or four years with anything remotely resembling the 10% margin of error that is regarded as just tolerable in general economic forecasting, manpower forecasting is of little value to vocational education planners."

__X__b. "For vocational education to serve the manpower needs of society effectively, a system of long-term manpower forecasting is needed; although present forecasting systems are highly inaccurate, new approaches to forecasting are promising."

_____c. "Long-term manpower forecasting with any degree of accuracy is impossible; however, because short-term forecasting has been highly reliable, it is of great value to vocational education planners."

4. Adequate manpower forecasting requires knowledge of the world of work in four specific areas. Errors or lack of information in any of these areas contributes to the difficulty of making <u>accurate</u> manpower forecasts. With which area are we concerned if we do not know the number of graduates of an occupational education program who do not enter the occupation for which they were prepared? (3.14)

_____a. manpower demands

_____b. manpower supply

_____c. occupational shifts

__X__d. slippage

5. Adequate manpower forecasting requires knowledge of the world of work in four specific areas. Errors or lack of information in any of these areas contributes to the difficulty of making accurate manpower forecasts. With which area are we concerned if an error occurs in estimating the number of job openings resulting from retirements and death? (3.14)

__X__ a. manpower demands
_____ b. manpower supply
_____ c. occupational shifts
_____ d. slippage

GOAL 3.2

6. Which of the following sets of terms describes the two major industrial divisions of America's work force? (3.21)

_____ a. government/manufacturing
_____ b. trade/agriculture
__X__ c. service/production
_____ d. professional/nonprofessional

7. In what major industrial grouping is the majority of American workers? (3.21)

_____ a. agriculture
__X__ b. service
_____ c. nonprofessional
_____ d. manufacturing

8. Which occupation would you expect to have the least demand in 1980? (3.22)

__X__ a. farmer
_____ b. policeman
_____ c. secretary
_____ d. nurse

9. Which occupation would you expect to have the greatest demand in 1980? (3.23)

_____ a. miner
_____ b. elevator operator
__X__ c. policeman
_____ d. fork lift operator

10. In which industry division has employment grown the fastest? (3.24)

_____ a. trade
_____ b. finance, insurance, and real estate
_____ c. manufacturing
__X__ d. government

11. Which broad occupational group has the greatest number of workers? (3.25)

_____ a. blue-collar workers
__X__ b. white-collar workers

12. Which occupational group has the greatest number of female workers? (3.26)

__X__ a. clerical workers
_____ b. managers and administrators
_____ c. sales workers
_____ d. operatives

13. For which age group is unemployment the highest? (3.27)

__X__ a. 16-24
_____ b. 25-34
_____ c. 35-50
_____ d. 50-65

14. If the unemployment rate for whites is 10%, what will most likely be the unemployment rate for blacks? (3.28)

_____ a. 10%
_____ b. 15%
__X__ c. 20%
_____ d. 30%

15. What is the educational level of the majority of American workers? (3.29)

_____ a. elementary school graduate
__X__ b. high school graduate
_____ c. college graduate

16. What percentage of the work force do women presently comprise? (3.210)

_____a. 25%
_____b. 35%
__X__c. 40%
_____d. 55%

17. What is the expected representation of women in the work force by 1980? (3.210)

_____a. 30%
__X__b. 40%
_____c. 45%
_____d. 60%

GOAL 3.3

18. Which of the following programs covers a variety of situations where work or work orientation is used to motivate students and to show them applications in the real world of what is learned in school? (3.31)

_____a. cooperative education
__X__b. work experience
_____c. work-study
_____d. simulation

19. Which of the following programs is best described as supervised on-the-job training with related classroom instruction? (3.31)

__X__ a. cooperative education

_____ b. work experience

_____ c. work-study

_____ d. simulation

20. What is one benefit of cooperative education for each of the following: the school, the student, the employer, the community? For each, describe the benefit in one sentence. (3.32)

The school benefits from cooperative education by being able to expand its learning facilities without major expenditures for shop and lab equipment.

The student benefits from cooperative education by learning about his/her future career and by obtaining a good basic education at the same time.

The employer benefits from cooperative education by gaining a source of selected and motivated workers who have chosen a career that corresponds with their interests and aptitudes.

The community benefits from cooperative education by gaining a supply of productive citizens in the community, cooperative education encouraging students to remain in the community after graduation.

21. What are two specific ways in which the 1968 Amendments to the Vocational Education Act of 1963 aided cooperative vocational education programs? (3.33)

The 1968 Amendments authorized funds to be appropriated for use in reimbursing employers for their added costs in participating in the program so that special consideration could be given to disadvantaged youth.

21. (continued)

The 1968 Amendments also authorized funds to be appropriated for use in paying for transportation and other services for disadvantaged youth that they could not be expected to pay.

22. What was the general conclusion of the Advisory Council on Vocational Education regarding the effectiveness of cooperative education programs? (3.34)

The Advisory Council on Vocational Education stated strongly that cooperative education had the best record of all vocational programs in terms of the proportion of students placed in the occupation for which they were trained.

23. What are two specific difficulties, or disadvantages, of cooperative education programs? (3.35)

Specific difficulties, or disadvantages, of cooperative education programs include: (1) its sensitivity to short-term economic fluctuations; (2) transportation difficulties for students in large cities; (3) opposition to the program from certain groups of employees; and (4) age restrictions on employment in certain fields.

(The answer to this question is correct if it includes any two of the items mentioned above.)

24. How might simulation enhance a cooperative program? (3.36)

Simulation for cooperative students prior to job placement can better prepare these students for the job because they will have experienced job conditions in the classroom, and, therefore, adjustment to the job is less traumatic.

25. What percentage of the American population is "disadvantaged"? (3.38)

____a. 5%
____b. 15%
__X__c. 20%
____d. 25%

26. Which of the following statements best describes the term "disadvantaged" according to the Vocational Education Amendments of 1968? (3.39)

____a. The 1968 Amendments define "disadvantaged" as those who are undereducated and underemployed.
__X__b. The 1968 Amendments require that the term "disadvantaged" be applied on an individual basis, after an assessment of individual strengths and weaknesses.
____c. The 1968 Amendments define "disadvantaged" as those who do not speak English as a primary language in the home, high school dropouts, and ethnic minorities.

27. Which piece of vocational education legislation allocated funds specifically for the disadvantaged? (3.39)

____a. the Smith-Hughes Act of 1917
____b. the Vocational Education Act of 1963
__X__c. the Vocational Education Amendments of 1968

28. What are three basic reasons why only a small portion of the disadvantaged are being reached by vocational education? (3.39)

Three basic reasons why only a small portion of the disadvantaged are being reached by vocational education are:
- the limited financial resources available to all of vocational education;
- the relative inexperience of the majority of educators and policy makers in working with individuals whose life styles, cultural values, and life experiences are different than theirs; and
- the difficulty in identifying those who are considered "disadvantaged" according to the Vocational Education Amendments of 1968.

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29. Which of the following statements is not a major policy recommendation of the National Advisory Council on Vocational Education? (3.39)

____a. "Residential schools should be established for those who need them most."

__X__b. "Priority should be given to the development of separate vocational and technical programs for the disadvantaged."

____c. "The nation must recognize that employment is an integral part of education, and every secondary school must also act as an employment agency."

____d. "Parents and students should be encouraged to participate in the development of vocational programs."

30. Which of the following statements best describes the general attitude of minorities toward vocational education programs? (3.39)

__X__a. Vocational education programs are designed to segregate minorities and prevent them from obtaining higher education.

____b. Any educational program which helps minorities compete more effectively for jobs is welcomed with open arms.

____c. Vocational education programs are good, but only for someone else's children.

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